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THE SUPREME COURT AND THE FEDERAL CIRCUIT: VISITATION AND CUSTODY OF PATENT LAW

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INTRODUCTION

The U.S. Supreme Court's relationship to patent law sometimes seems like that of a non-custodial parent who spends an occasional weekend with the kids. The custodial parent is, of course, the U.S. Court of Appeals for the Federal Circuit. The Federal Courts Improvement Act of 1982 consolidated intermediate appellate jurisdiction over patent law cases in this single court, which hears appeals from the U.S. Patent and Trademark Office ("PTO"), the U.S. District Courts, the U.S. Court of Federal Claims, and the U.S. International Trade Commission. Day to day it is the Federal Circuit that reviews contested decisions of the institutions that administer the patent system. Congress created the Federal Circuit in order to achieve national uniformity, doctrinal stability, and predictability in patent law—leaving some question as to the appropriate role for the Supreme Court. The Supreme Court controls the frequency of its patent law visits, and it is free to grant certiorari more often if it is unhappy with the Federal Circuit's stewardship. But the Supreme Court has other work to do; it is an extraordinary year when it manages to review as many as three patent cases, as it did this past term. When each of these Supreme Court visits eventually comes to an end and everyday life resumes, it becomes plain once again that the Federal Circuit is, for all practical purposes, the parent in charge.

The increasing propensity of the Supreme Court to grant review in patent cases suggests that it is concerned about how good a job the Federal Circuit is doing. But the consolidation of intermediate appellate jurisdiction in a single court presents special challenges for Supreme Court review. First, how does the Court decide which cases to review without circuit splits to signal important and contested issues? Second, what benchmarks can it use to evaluate the jurisprudence of a court that stands alone in its field? Third, how can it control future decisions of an expert court that disagrees with it?

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I. CASE SELECTION

The small set of patent cases in which the Supreme Court has granted certiorari reveal several different signals that have drawn the Court's attention to cases meriting review.

First, the Supreme Court has granted certiorari to review cases in which the Federal Circuit's patent jurisprudence is at odds with the treatment of similar issues in other fields of law. For example, in *Dickinson v. Zurko*, the Court considered whether it was appropriate for the Federal Circuit to accord less deference to factual findings of the PTO than courts accord to the findings of other agencies under the Administrative Procedure Act. And, in *eBay Inc. v. MercExchange LLC*, the Court considered whether the standard for injunctive relief should be less stringent in patent cases than in other fields.

Second, the Supreme Court has granted certiorari when it believes the Federal Circuit has departed from the Supreme Court's own patent law decisions. For example, the Court has granted certiorari twice in the last eight years in cases involving patent-eligible subject matter—an issue that the Court had repeatedly addressed in a series of decisions prior to the creation of the Federal Circuit. These grants occurred in *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc.* and in *Laboratory Corp. of America Holdings v. Metabolite Laboratories, Inc.* (although the Court later dismissed certiorari in *Laboratory Corp.* as improvidently granted). Unfortunately, the Supreme Court's own patent jurisprudence is mostly quite old, limiting its value as a guide to the most pressing unresolved issues today.

Third, the Supreme Court has intervened to resolve internal divisions within the Federal Circuit. Thus, in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.* and *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki, Co.*, the Supreme Court granted certiorari to review en banc decisions revealing sharp disagreements among the judges of the Federal Circuit as to the rules for determining patent infringement liability under the doctrine of equivalents and the doctrine of prosecution history estoppel, respectively.

Fourth, in recent years the Supreme Court has increasingly sought and sometimes heeded the views of the Solicitor General before granting certiorari in patent cases. The Solicitor General's views, in turn, are informed by the views and experience of the PTO. As an expert agency that administers the patent laws under the appellate oversight of the Federal Circuit, the PTO has a unique perspective on the patent jurisprudence of that court. The Supreme Court has sometimes ignored the recommendation of the Solicitor General to deny certiorari, as it did in *J.E.M.* and *Laboratory Corp.* But whenever in recent years the Solicitor General has urged the Supreme Court to grant certiorari in a patent case, it has done so, and the Court has ultimately resolved the case in accordance with the Solicitor General's advice. Recent examples include *Merck KGaA v. Integra Life Sciences I, Ltd.*, *KSR International Co. v. Teleflex, Inc.*, and *Microsoft Corp. v. AT&T Corp.*

Fifth, the views of other amici in patent cases may also be playing a larger role in guiding the Supreme Court's patent jurisprudence than they have in the past. The liberalization of rules for patent eligibility in the 1990s expanded the universe of industries affected by patents, bringing divergent views before the Court in the form of amicus briefs from major corporations. For example, in *eBay*, amici filing briefs on behalf of the respondent included General Electric, 3M, Proctor & Gamble, DuPont, Johnson & Johnson, the Pharmaceutical Research and Manufacturers of America, the Biotechnology Industry Organization, and numerous universities. The amici supporting the petitioner included Yahoo!, Time Warner, Amazon.com, Chevron, Cisco Systems, Google, Shell Oil, Visa, Xerox, and trade groups from the software and financial services industries. The presence of such sharp disagreements among powerful institutions signals to the Court the existence of an important and contested issue of law. Although amicus briefs are more common at the merits stage, they could be used more extensively at the certiorari stage to guide the Supreme Court in case selection.

II. BENCHMARKS FOR EVALUATION

Beyond picking cases to review, the Supreme Court faces the additional challenge of how to second guess the Federal Circuit in a field where that court has been the dominant appellate authority for the past twenty-five years. On some issues, the Court can turn to non-patent cases as benchmarks, as it did in *Dickinson* and *eBay*, but this approach could lead the Court to overlook good reasons for treating patent cases differently. The Court can also look more closely at the Federal Circuit itself. When the Court reviewed decisions of a divided Federal Circuit in *Warner-Jenkinson* and *Festo*, the Court turned to the Federal Circuit's dissenting opinions for guidance in critiquing the majority opinions. Rarely, however, has the Supreme Court used Federal Circuit opinions in other cases as benchmarks for evaluating the cases currently before the Court. This is a regrettable omission that deprives the Supreme Court of the benefit of a quarter century of patent jurisprudence. It also deprives the Federal Circuit of the discipline of Supreme Court oversight of its performance in achieving uniformity, stability and predictability in patent law.

For many substantive issues of patent law, such as the nonobviousness standard reviewed in *KSR*, the Court has dusted off its own venerable case law for guiding principles, largely ignoring twenty-five years of more recent Federal Circuit decisions. In *KSR*, the Court relied primarily on six of its own prior opinions, beginning with the 1851 decision in *Hotchkiss v. Greenwood* and concluding with its 1976 decision in *Sakraida v. AG Pro, Inc.* The Court briefly mentioned two more recent Federal Circuit decisions that elaborated upon that court's approach to nonobviousness but quickly set them aside, noting that "[t]hose decisions, of course, are not now before us and do not correct the errors of law made by the Court of Appeals in this case." The Court did not use any Federal Circuit decisions as authority for identifying or explaining the errors made by the Federal Circuit in *KSR*.

By ignoring close to a quarter century of Federal Circuit decisions, the Court's *KSR* decision undermined the stability and predictability in patent law that Congress sought to achieve through the Federal Courts Improvement Act of 1982. Moreover, by failing to situate its own decisions against a broader backdrop of Federal Circuit authorities, the Court missed an opportunity to clarify the implications of its decisions in a field of law that it visits infrequently—setting the stage for the Federal Circuit to read Supreme Court decisions narrowly in the future.

III. GUIDING FUTURE DECISIONS

The greatest challenge for the Supreme Court is to focus its limited attention to patent law in ways that will do the most good for the patent system. If Supreme Court review achieves nothing more than correcting particular erroneous decisions of the Federal Circuit, it will almost surely waste time that could be better spent on other matters. Supreme Court decisions are most likely to have an enduring impact on the Federal Circuit when they resolve discrete issues in ways that provide clear guidance for future cases. Decisions that call for flexible case-by-case analysis in the future, while empowering the Federal Circuit to exercise its own judgment, are unlikely to change how that court decides cases.

Consider the recent Supreme Court decision in *KSR*. The *KSR* District Court on summary judgment held a patent invalid for obviousness based on a combination of prior art references that disclosed different elements of the invention. The Federal Circuit, not satisfied that the prior art provided sufficient teaching, suggestion, or motivation to combine the elements (under the so-called “TSM” test), reversed and remanded the case for trial. The Supreme Court reversed, admonishing the Federal Circuit to avoid the use of “rigid and mandatory formulas” in applying the nonobviousness standard. The Federal Circuit had applied the TSM test in a way that the Court found inconsistent with the “expansive and flexible approach” that has characterized the Supreme Court's own decisions on the issue over the past 150 years.

While *KSR* was pending before the Supreme Court, the Federal Circuit seemed to moderate its rhetoric in nonobviousness cases, going out of its way to show its flexibility. For example, the Federal Circuit reiterated in *Alza Corp. v. Mylan Labs, Inc.* that the TSM standard can be satisfied implicitly as well as explicitly, that it is not a rigid formula, and that it “has permitted us to continue to address an issue of law not readily amenable to bright-line rules, as we recall and are guided by the wisdom of the Supreme Court in striving for a ‘practical test of patentability.’” Although the Supreme Court took note of this and other recent cases in *KSR*, it left for the Federal Circuit to consider “[t]he extent to which they may describe an analysis more consistent with our earlier precedents and our decision here.”

The Supreme Court's *KSR* opinion revealed fundamental disagreements with the Federal Circuit's approach to nonobviousness analysis. The Court turned just about every move that the Federal Circuit has made to standard-

ize and formalize nonobviousness analysis on its head. The Justices reiterated the continuing vitality of the Supreme Court's ancient skepticism toward patents that combine elements found in the prior art—a skepticism that stands in contrast to the Federal Circuit's insistence on finding a teaching, suggestion, or motivation to combine the elements before declaring such a combination obvious. The Justices repeatedly approved of resort to “common sense”—a phrase that the Federal Circuit has sometimes taken to be camouflage for “hindsight bias”—reminding the Federal Circuit that fear of the hindsight bias is no excuse for “[r]igid preventative rules that deny factfinders recourse to common sense.” The Court repeatedly invoked “market forces” as likely to motivate improvements to the prior art and thereby to make them obvious, in contrast to the Federal Circuit's own treatment of market demand for an invention as indicating that it must have been nonobvious if the problem nonetheless remained unsolved. They disapproved of the Federal Circuit's focus on the problem the patentee was trying to solve as the point of departure for deciding whether the invention was obvious, preferring instead an “objective” approach that asks whether the claimed invention was an obvious solution to any known problem in light of the prior art. They even disapproved of the Federal Circuit's standard bromide that an invention might be “obvious to try” and yet still nonobvious, noting that if a combination of elements is obvious to try with an expectation of success, “it is likely the product not of innovation but of ordinary skill and common sense.”

In the end, however, the Supreme Court did little to constrain the Federal Circuit beyond admonishing the Federal Circuit not to apply rigid rules. Indeed, by affirming that the ultimate determination of obviousness is a question of law rather than a question of fact, the Supreme Court left intact the plenary review power that has allowed the Federal Circuit to reshape obviousness doctrine over the years.

As of this writing, the Federal Circuit has decided twelve nonobviousness cases since the *KSR* decision came down. These cases suggest that *KSR* has had only a modest impact on the Federal Circuit so far. Three cases made no mention of *KSR* at all. On the other hand, *KSR* appears to have been decisive in one case, *Aventis Pharma Deutschland GmbH v. Lupin, Ltd.*, leading the Federal Circuit to reverse a close decision in the District Court that the challenger had failed to prove obviousness by clear and convincing evidence. One other decision considers *KSR* at some length, while the others give it a more perfunctory citation. The Federal Circuit continued to cite its own prior nonobviousness decisions liberally, including pre-*KSR* decisions applying the TSM test.

In theory, all of these decisions are subject to review by the Supreme Court, but it is hard to imagine that the Supreme Court plans to review nonobviousness decisions more than sporadically. Nonobviousness analysis is difficult and tedious. Moreover, it cannot be done properly without sustained attention to technological details, a task that generalist courts have never relished.

CONCLUSION

So long as the Federal Circuit avoids overt disregard for the Supreme Court's teachings, it may be difficult to figure out whether the Federal Circuit has in fact taken those teachings to heart. The Court's general admonitions to avoid the use of rigid and mandatory formulas will more likely change what the Federal Circuit says than what it does, making the Federal Circuit's decisions more opaque and harder to follow.

But the Federal Circuit and the Supreme Court are not the only institutions that make up the patent law family. Perhaps the most important impact of the *KSR* decision will be on the PTO. The PTO, after all, supported certiorari in *KSR* and guided the Supreme Court toward the decision it reached. If *KSR* emboldens the PTO to reject more patent applications for obviousness without fear of reversal, that would be a significant change. Moreover, if the PTO perceives that the Federal Circuit is ignoring *KSR*, the Supreme Court may well heed the PTO's call to revisit the issue with greater frequency in the future. That prospect may, in turn, give the Federal Circuit pause in reviewing decisions of the PTO. Although the Federal Circuit retains primary custody of patent law, its authority is inevitably diminished when the Supreme Court reverses its decisions. To avoid that outcome, the Federal Circuit, like any prudent parent, should pick its battles with care.

KSR V. TELEFLEX:
PREDICTABLE REFORM OF PATENT SUBSTANCE
AND PROCEDURE IN THE JUDICIARY

*John F. Duffy** †

INTRODUCTION

Though *KSR International Co. v. Teleflex, Inc.* is now widely acknowledged in the bar and the academy to be the most significant patent case in at least a quarter century, that view dramatically underestimates the importance of the decision. The *KSR* decision has immense significance not merely because it rejected the standard of patentability that had been applied in the lower courts for decades, but also because it highlights many separate trends that are reshaping the patent system.

This Commentary will touch upon four such trends that are clearly evident in *KSR*. First, the case was a predictable continuation of the Supreme Court's reengagement in the field of patent law. Second, the decision represents a continued revision to the substantive standards applied in patent law. Third, and perhaps most overlooked, *KSR* heralds a significant procedural reform to patent litigation. Fourth, the decision presents a classic example of the judiciary revising judge-made doctrines in response to external criticism. This final point raises the interesting theoretical issue of whether the traditional common law process in the patent field has been fatally hobbled by the creation of a single intermediate appellate court with jurisdiction over most patent cases. *KSR* holds out the hope that the judiciary is still capable of overseeing the field in the traditional manner, but developments in the Congress and the U.S. Patent and Trademark Office ("PTO") suggest that this tradition may be coming to an end.

I. PREDICTABLE REFORM

It is exceedingly rare that a Supreme Court decision can be responsible for such a dramatic change in lower court law and yet have been so thoroughly predictable. I am confident in saying the decision was predictable because my 2003 *Supreme Court Review* article, *The Festo Decision and the Return of the Supreme Court to the Bar of Patents*, not only predicted a general return of the Supreme Court to the patent field but also specifically

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singled out the obviousness doctrine as an area that the Court would address “soon.” There is a story here, and it is worth telling because it shows how patent issues can continue to attract the Supreme Court’s attention despite the dominance of a single court of appeals over patent law.

Long before *KSR*, a notorious divergence between the obviousness precedents of the Supreme Court and the Federal Circuit had been widely recognized by patent attorneys and scholars. The divergence was easy to see. While the regional circuits had cited the Supreme Court’s most recent decision on obviousness, *Sakraida v. Ag Pro, Inc.*, about ten times per year prior to the centralization of patent appeals in 1982, the Federal Circuit cited *Sakraida* only four times in the twenty-four years between 1982 and the grant of certiorari in *KSR*. What’s more, in three of the four cases, the court had cited *Sakraida* only to disparage it.

In 2002, three significant events occurred, essentially guaranteeing that the Supreme Court would soon review the Federal Circuit’s obviousness case law. First, the Federal Circuit itself acknowledged in *Engineering Corp. v. Bartell Industries, Inc.* that its obviousness precedents were significantly different from regional circuit precedent applied prior to the creation of the Federal Circuit. That overt acknowledgment of a “circuit split” made it much easier for a party to petition successfully for certiorari. Second, in a case named *In re Lee*, the Federal Circuit reversed the PTO’s refusal of a patent application and expressly indicated that the PTO should not rely on “common sense” in rejecting patent applications. That decision created a great deal of hostility at the PTO and also made the Federal Circuit doctrine seem unreasonable on its face. Third, the Federal Trade Commission held hearings that culminated in a report lucidly explaining the importance of the obviousness standard and documenting the PTO’s increasing hostility to Federal Circuit doctrine.

At the Federal Trade Commission hearings, I realized that the Supreme Court would grant certiorari on the obviousness doctrine if only it were asked to do so. Indeed, it seemed incredible that the government had not sought certiorari after its then recent defeat in the *Lee* case. One PTO official explained to me that seeking Supreme Court review was an onerous process inside the executive branch bureaucracy; I realized that private parties would be far more effective than the government in bringing the issue to the Court. In subsequent speeches, I urged private attorneys to present the issue to the Supreme Court. As a result of those speeches, I had the good fortune to be asked to coauthor the successful certiorari petition.

The *KSR* experience shows that attracting the Supreme Court’s attention to a patent law issue remains broadly similar, if not identical, to the process in other areas of federal statutory law. In deciding whether to grant certiorari, the Court looks for conflicting authorities. In patent law, conflicts between recent appellate decisions are nearly impossible due to the Federal Circuit’s almost exclusive jurisdiction over the area, and so the Supreme Court has learned to look elsewhere for signs of discord. In *KSR*, evidence of conflict came from a comparison of Federal Circuit decisions with earlier “pre-Federal Circuit” appellate decisions, from the opinions of scholars

(who had long noted the tension between Supreme Court precedent and Federal Circuit precedent), and from the government's criticism of Federal Circuit doctrine in the Federal Trade Commission report. Yet even with this evidence, the Court was cautious; it asked the Solicitor General for his opinion prior to the grant of certiorari—a technique that the Court has deployed frequently in the patent area. The resulting amicus brief from the Solicitor General confirmed the conflicting views and sealed the case for certiorari.

II. REFORM OF PATENT SUBSTANCE

In a series of cases, the Supreme Court has actively reviewed and changed the substantive standards of patent law developed by the Federal Circuit. *KSR* continued this trend, and, in fact, the most widely celebrated aspect of *KSR* is its substantive effect on the patentability standard.

For almost all of its quarter century of existence, the Federal Circuit articulated and applied a patentability standard under which subject matter claimed by a patent applicant would be considered nonobvious, and therefore patentable, unless it could be proven that a “teaching, suggestion, or motivation” previously existed to make the claimed subject matter. The test had become boilerplate in the Federal Circuit's opinions and was applied by that court in *KSR*. In the very beginning of its legal analysis, the Supreme Court announced that it was “rejecting the rigid approach of the Court of Appeals.” That simple, clear statement heralded a revolution in the field by disavowing years of lower court precedent.

Yet for all its significance, the Supreme Court's substantive holding was also precisely targeted and limited. True, the Supreme Court disavowed the rigid substantive standard that the Federal Circuit had applied for years, but the Court left open many possible ways in which the substantive standard could evolve. Though the Supreme Court has given the lower court a strong reminder that it should cite and follow *all* the higher Court's precedents on the patentability standard, the Federal Circuit will still have substantial freedom, in the first instance, to choose which path the law should take in future cases. That is as it should be, for *KSR* was the first obviousness case adjudicated by the Supreme Court in more than 30 years. But the limitations on the Court's holding blunt the substantive effect of *KSR* somewhat; the decision offers the Federal Circuit a new starting point rather than a final destination.

III. REFORM OF PATENT PROCEDURE

As important as *KSR* is substantively, the decision's procedural significance is even greater. Prior to *KSR*, the Federal Circuit had held that its teaching-suggestion-motivation test presented an issue of fact for juries to determine. The teaching-suggestion-motivation test therefore had the practical effect of transforming the issue of patent validity—which the Supreme Court has repeatedly held to be an issue of law—into an issue of fact. Consequently, the basic validity of a patent, even one mistakenly issued without

consideration of the relevant prior art, could not be decided without a multimillion dollar jury trial.

In *KSR*, the Supreme Court restated once again that validity is an issue of law for judges to decide. The Court made this clear throughout the opinion by detailing questions that “the court must ask” in deciding obviousness issues and by directing that “[t]o facilitate review, this analysis should be made explicit.” Those directions clearly foreclose much jury involvement. Furthermore, the Supreme Court’s disposition of *KSR* itself underscores that the issue of “obviousness is a legal determination,” as the Court held it “appropriate” to invalidate the patent claim at issue on summary judgment. Thus, after *KSR* there will undoubtedly be a sea change in procedure, as deciding obviousness—and likely other validity issues—becomes the exclusive province of the judge.

Indeed, another Court decision just a few months before *KSR* greatly magnified the latter decision’s procedural implications. In January 2007, the Court’s decision in *MedImmune, Inc. v. Genentech, Inc.* overturned the Federal Circuit’s restrictive case law on the availability of declaratory judgments in patent cases. In combination, *KSR* and *MedImmune* allow a party threatened with a potentially invalid patent to file a declaratory judgment action as soon as the threat becomes known and to seek immediate summary judgment as to the patent’s validity. Such an action holds the promise of a relatively inexpensive and quick judicial decision on the basic validity of the patent. Defendants have long sought such an efficient method for challenging questionable patents; previously their best hope had been for new legislation that would create an administrative process for reconsidering the validity of issued patents. Now defendants may find their Holy Grail in the courts.

IV. JUDICIARY REFORM AND THE COMING DEATH OF THE COMMON LAW IN THE PATENT SYSTEM

Although patent law is a creature of federal statute, it has long been dominated by judicially-created common law. As in antitrust (that “other” branch of federal monopoly law), the key statutory provisions fairly exude ambiguity. The hallmark of the common law process is the incremental development of legal doctrine, as the courts themselves constantly experiment with changes and correct themselves when the changes go awry or go too far.

KSR carries on that tradition of growth and correction, but it remains unclear whether the tradition will continue much longer. Congress has become increasingly willing to consider detailed patent legislation, which could displace the traditional common law process through its sheer length, if perhaps not its clarity. Similarly, the PTO is becoming more aggressive in issuing guidelines and promulgating procedural rules as a means of controlling the development of the law. Such administrative actions could also displace judicially-developed common law. Furthermore, the primary pieces of patent reform legislation introduced this year in the House and the Senate

proposed delegating broad rule-making powers that would allow the PTO to supplant the courts as the primary organ for developing law and policy in the patent system.

Thus, *KSR* may be one of the last great common law decisions on patent law. If that happens, the death of patent common law will be directly attributable to the creation of a single court of appeals in the field. Even with the Supreme Court's increased oversight, the Federal Circuit is likely to remain the sole appellate court issuing binding precedents on many important issues in the field. Ironically, that concentration of judicial power on patent issues seems to be bringing about the demise of the traditional judicial power to shape patent common law. Supreme Court review—even for an issue sufficiently important to prompt certiorari—may not be forthcoming for many years or even, as *KSR* shows, decades. The continual process of intercourt debate and incremental conflict so essential to the health of the common law has thereby been sacrificed on the altar of uniformity. In the absence of structural reform that would spread patent jurisdiction to a few additional circuits, as Craig A. Nard and I propose in our forthcoming *Northwestern Law Review* article, *Rethinking Patent Law's Uniformity Principle*, the centuries-old arc of judicial development of patent law, of which *KSR* is merely the most recent part, may not survive long into this new century.

MAKING SENSE OF *KSR* AND OTHER RECENT PATENT CASES

*Harold C. Wegner** †

INTRODUCTION

The recent Supreme Court review of *KSR International Inc. v. Teleflex Inc.*, *eBay Inc. v. MercExchange LLC*, and *Microsoft Corp. v. AT&T Corp.* manifests the Court's current interest in the patent jurisprudence of the Federal Circuit. Now it is evident that the Court has a level of concern sufficient to guarantee the *possibility* of grant of certiorari—whereas formerly a case could rarely generate sufficient interest for review. For long-range importance in patent law, *KSR* stands alone as the single most important Supreme Court patent decision on the bread and butter standard of “obviousness” in the more than forty years since the 1966 *Graham v. John Deere*. *KSR* will remain the leading interpretation of the *Graham* standard for quite some time.

I. THE *MICROSOFT* PARADIGM: A COLLECTIVE MESSAGE TO THE FEDERAL CIRCUIT

It is particularly evident to anyone who has listened to oral arguments in *KSR*, *eBay*, and *Microsoft* that the Supreme Court has taken a special interest in the Federal Circuit—a court that marches to a different drummer than its sister circuits. The *Microsoft* case perhaps best exemplifies one such difference: the penchant by some on the Federal Circuit for “judicial legislation.” In this case of otherwise only limited importance, the Federal Circuit is seen as a highly balkanized court, unable to resolve intra-circuit differences even sitting en banc.

Microsoft, which deals with the export of a “golden master” to load Windows onto computers, is one in a series of panel opinions adopting contradictory interpretations of an arcane and rarely-used statute originally enacted to deal with offshore infringement of a shrimp deveiner and other similar mechanical combination inventions. Yet, in the past few years, courts have used wildly differing interpretations when deciding whether to apply the statute outside its mechanical combination patent origins.

Demonstrating the Supreme Court's newly found special interest in the Federal Circuit, Justice Ginsburg rebuked the Federal Circuit for its “dynamic judicial interpretation” which led to hundreds of millions of dollars damages being assessed against Microsoft for exporting its software technology. Justice Ginsburg noted that the exporting clearly fell entirely outside

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the statute and that the Federal Circuit's contrary interpretation undercut clear congressional intent. Without citation of any economic study or scholarly work or anything else, the Federal Circuit majority had held that allowing Microsoft to escape the shrimp deveiner statute would

permit[] a technical avoidance of the statute by ignoring the advances in a field of technology . . . that developed after the enactment of [a remedial statute] [I]f [the remedial statute] is to remain effective, [it] must therefore be interpreted in a manner that is appropriate to the nature of the technology at issue.

Additionally, Judge Alan Lourie, writing for the Federal Circuit's majority, ignored the public policy arguments of the dissent. Circuit Judge Rader, in his dissent, argued that the majority "provide[d] extraterritorial expansion to U.S. law by punishing under U.S. law 'copying' that occurs abroad. While copying in Düsseldorf or Tokyo may indeed constitute infringement, that infringement must find its remedy under German or Japanese law."

Responding to the Federal Circuit majority's judicial activism, Justice Ginsburg stated, "While the majority's concern is understandable, we are not persuaded that dynamic judicial interpretation of [the statute] is in order. The 'loophole,' in our judgment, is properly left for Congress to consider, and to close if it finds such action warranted."

II. KSR: A PATENTABILITY STANDARD FOR THE AGES

Despite the balkanized nature of today's Federal Circuit, the 1966 *Graham v. John Deere* case remains the leading precedent on "obviousness," the statutory standard of patentability that is now codified at 35 U.S.C. § 103(a). Nonetheless, *KSR* significantly tightened the *Graham* standard of obviousness in ways that will continue to have a lasting impact. *KSR* could remain the leading case on patent law obviousness for decades. Unlike the arcane issue of *Microsoft* that is present in perhaps one in a thousand cases (at most), the obviousness standard of *KSR* is implicated in nearly all patent validity challenges.

Yet if past is prologue, there will not be another Supreme Court review of the standard of obviousness for quite some time. In the forty-one years between *Graham* and *KSR*, the Court made no major refinement of the obviousness standard.

Indeed, in that interval, the Court reached the merits of obviousness in just three arcane cases: *Anderson's-Black Rock v. Pavement Co.* in 1969, which involved an asphalt paving machine said to be inventive because of its combination of a known radiant-heat burner with a standard bituminous paver; *Dann v. Johnston* in 1976, which involved a general purpose computer programmed to provide bank customers with an individualized and, categorized breakdown of transactions; and, only three weeks later, the notorious *Sakraida v. Ag Pro, Inc.*, which involved using a wall of water to flush barn manure—a method ridiculed by the Court for making no advance beyond Hercules' mythical cleansing of the Aegean stables by flushing them with a diverted river.

III. RAISING THE BAR TO SUSTAIN PATENT VALIDITY

KSR raises the bar for sustaining the validity of patents in virtually every invention outside chemistry and biotechnology. The *res* of *KSR* is a combination of old elements—an old “gas pedal” and an old electronically-controlled car engine. Beyond the new molecules of chemistry and biotechnology, almost all inventions in other technologies combine old elements; patentability is determined by whether the combination was obvious. Until *KSR*, a combination was nonobvious and could be patentable unless there were signposts teaching how to assemble the various pieces, much like an instruction manual does for an unassembled toy. If existing teaching manuals or patents showed how to complete the puzzle, *then* the invention was “obvious” to a “worker skilled in the art”—the patent statute’s “reasonable man.” While this hypothetical soul may have had an advanced education, he was a boring fellow, bereft of the ingenuity to figure out how to put puzzle pieces together without prompting; per *KSR*, this hypothetical man was an “automaton.”

Now, under *KSR*, if the puzzle pieces exist, the combination of elements may be obvious to this worker in the art merely because a *problem* is known. Unlike the pre-*KSR* automaton, the post-*KSR* worker in the art has “ordinary creativity.” As a result, inventions that were nonobvious the day before *KSR* suddenly became obvious to this modern man of ordinary skill in the art.

The tightening of the patentability standard is further manifested by *KSR*’s endorsement of the “obvious to try” standard that had been in disfavor throughout the history of the Federal Circuit. This disfavor dates back to pronouncements by the late Giles Sutherland Rich in the 1960s while sitting on the Court of Customs and Patent Appeals, the Federal Circuit’s predecessor. Under *KSR*, if a problem can be solved by only a finite number of solutions, it may be “obvious to try” the various solutions, and, if so, the invention may be *prima facie* obvious.

KSR impacts the validity determination of virtually *every* invention other than new entities of chemistry and biotechnology. These fields are the main areas of innovation that do not principally involve combination claims. Disputes over the patentability of most other technologies, however, involve combination claim challenges, where the key battle concerns whether it would have been obvious to assemble the components in the patentee’s combination.

IV. MAKING SENSE OF A BALKANIZED FEDERAL CIRCUIT

While the Federal Circuit panel opinion in *KSR* is completely out of whack with what the Supreme Court subsequently decided, there is little difference between the Supreme Court’s *KSR* holding and earlier decisions of some other Federal Circuit panels. This apparent contradiction reflects the balkanized nature of the Federal Circuit that *Microsoft* previously demonstrated.

In the context of obviousness, even prior to the recent prominence of patent law within the Supreme Court’s docket, most Federal Circuit judges understood that court’s subordinate relationship to the Supreme Court. This

recognition was perhaps best seen in Circuit Judge Linn's well-reasoned 2006 opinion in *In re Kahn*—written *prior* to the grant of certiorari in *KSR*. Whereas the lower court in *KSR* had denied obviousness because there was no express teaching or motivation shown in the prior art to put together the puzzle pieces—the different teachings of the references—Judge Linn pieced together a long string of precedents from his court that convincingly demonstrated that no express teaching or motivation need be shown in the prior art to establish obviousness; the motivation could be implicit. Judge Linn's prescient analysis was rewarded when the Supreme Court cited his *Kahn* opinion with approval.

CONCLUSION

In less than four years, the Federal Circuit will be led by new Chief Judge Randall Rader, who will shortly celebrate his twentieth anniversary as a member of the judiciary and more than fifteen years as a key member of the intellectual property law faculty of the George Washington University Law School. Within four years, all but Circuit Judges Sharon Prost and Kimberly Moore will be senior-eligible, leaving the possibility of up to nine new judges on the twelve member Federal Circuit. Given the scope of this imminent judicial turnover on the Federal Circuit, the *KSR* case surely will be the new Rader Court's Bible for learning the law of obviousness.

NOW THAT THE COURTS HAVE BEATEN CONGRESS TO THE PUNCH, WHY IS CONGRESS STILL PUNCHING THE PATENT SYSTEM?

*Robert A. Armitage** †

INTRODUCTION

The U.S. House of Representatives began September by passing the Patent Reform Act of 2007. This bill, if enacted, would make major changes to U.S. patent law. Given the universally recognized need for improvements to the U.S. patent system, passing a patent reform bill in the House should have been easy. It was not. The Patent Reform Act of 2007 made it through the House only after a spirited debate. There were a host of complaints by House members that the bill was not ready for floor action. In the end, it passed the House by a relatively narrow margin, 220 members voting for the bill and 175 members voting against.

What made for such tough congressional sledding?

I. DUELING AGENDAS FOR PATENT REFORM

The bill is controversial because it mostly reflects the wish list of a single-minded coalition of interests. The bill's supporters allege that the enforcement of many U.S. patents is no less than lawsuit abuse. The core supporters of the House bill responded to these allegations with provisions to limit the damages available to patent owners, to restrict the judicial venues available for patent enforcement actions, and to provide additional non-judicial forums for deciding patent validity. In other words, the House saw the case for patent reform as largely one for tried and true *tort reform*. Understandably, many patent owners do not see the House action as a reform of the patent system at all, but rather as a concerted effort to diminish it.

The contrary views of what is and is not needed patent reform come from a diverse set of constituencies. Those opposed to the path taken in the House bill range from bar associations (the Intellectual Property Law Section of the American Bar Association and the American Intellectual Property Law Association) to trade associations (the National Association of Manufacturers and the Biotechnology Industry Association). Those leading the

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opposition to the House bill are among the strongest supporters of an alternative set of patent reform measures—the April 2004 recommendations of the National Academy of Sciences.

The National Academy, after an intensive, four-year study of the U.S. patent system, recommended patent reforms that would remove highly subjective elements from the U.S. patent law—*and the expense, unpredictability, and uncertainty that those elements inject into the patent system*. Other National Academy reform recommendations would permit a patent's validity to be readily determined from publicly accessible information—*again eliminating more of the expense, unpredictability and uncertainty that uniquely plague U.S. patent law*. By any reckoning, the National Academy recommendations—although they would substantially rework fundamental aspects of the operation of U.S. patent law—struck a careful balance between the interests of those seeking to enforce valid patents and those seeking to challenge questionable ones.

Supporters of the National Academy recommendations accepted the Academy's core findings. The Academy found that the effectiveness of the U.S. patent system is impaired in large measure because quirks of our domestic patent system make it uniquely costly and complicated to use; it also found that it is time to jettison antiquated patent law principles that are in use here but nowhere else in the world. These supporters, thus, see comprehensive patent reforms as having the potential to greatly improve the quality of issued patents and the ease of assessing a patent's validity. The reforms may also ensure that enforcing a patent in court could never be credibly termed an act of lawsuit abuse.

The House bill, however, simply bypassed the National Academy's recommendations for a more transparent and objective U.S. patent law. The House punted on the core recommendation of the National Academy to place U.S. patent law principles in greater harmony with concepts present in *every other country around the world*. It postponed implementation of the most important of these harmonizing measures: introduction of the first-inventor-to-file principle. In the fine print in the transition provisions of the bill, the implementation of this principle was put off to the distant date when European countries have ratified a new version of the European Patent Convention containing a so-called "grace period"!

The National Academy's recommendation to remove all of the highly subjective factors from U.S. patent law was also left unrealized. The House declined to take steps needed to limit the most important of these subjective elements, the defense to the enforceability of a patent based upon allegations of so-called "inequitable conduct." This defense in recent years has denied patent owners the right to enforce otherwise valid and infringed patents because of little more than "technical fouls" committed during patent procurement. The bad conduct that can trigger loss of enforceability can be nothing more than a misstatement or incomplete statement made to the United States Patent and Trademark Office in a patent application, even if this conduct made no difference to the decision to grant the patent.

As the bill reached the floor, the House approved an amendment that essentially rejected the National Academy's recommendation to eliminate the "inequitable conduct" defense. The current bill codifies a broad reach for the "inequitable conduct" doctrine—one that would render the U.S. patent statute unique in the world in affording a defense of this type to infringers of valid patents.

On the "inequitable conduct" issue alone, the House bill sets a precedent that could have dire international consequences for U.S. interests. Should other countries incorporate a similar provision into their patent laws, this could subject foreign patents of U.S. inventors to all manner of new unenforceability assertions. This is an especially troublesome prospect for U.S. interests in countries that stand to benefit more by inexpensively copying U.S. technology than by respecting and protecting U.S.-origin intellectual property rights.

II. "TROLLS" VERSUS "ANTI-TROLLS": THE LAWSUIT ABUSE AGENDA EXAMINED

What led the U.S. House of Representatives to ignore broadly supported calls for needed reforms to U.S. patent law that were laid out by the National Academy in a set of compelling, well-reasoned recommendations? Are the aforementioned "lawsuit abuse" allegations so persuasive that they justify Congress enacting legislation that many believe represents a devastating retreat from decades of consistent U.S. support for strong and effective patent laws—and may have highly undesirable consequences for U.S. innovators seeking to profit from their innovations in markets outside the United States?

One answer is that supporters of the House-passed bill have thus far successfully advanced the case that something must be done about "trolls" who own patents and the patent plaintiffs' bar willing to take trolls' cases into court. Trolls are patent owners whose business is based at least in part on acquiring patents from others to generate licensing income or, failing that, to collect damages based upon infringement of the acquired patents. Even though trolls may merely be exercising a right to compensation for infringement of valid patents, an anti-troll constituency argues that the troll business model is viable in part because patent litigation unfairly disadvantages accused patent infringers and unfairly advantages patent owners. These disadvantages arise in large measure, so they assert, because the federal courts' patent jurisprudence excessively rewards inventors and makes it too difficult to invalidate questionable patents.

Starting soon after the Federal Circuit was created in 1982, a number of specific contentions have provided grist for these anti-troll gripes. For example, looking back to the 1980s and 1990s, anti-patent forces asserted that juries had too much leeway in deciding what a patent covers. Every patent includes one or more "claims" that must lay out with definiteness and particularity what subject matter is legally protectable and what is not. When deciding what a patent covers, anti-patent forces contended that juries were

too easily swayed in their determination of what a patent claim means and they routinely gave patent owners the benefit of the doubt.

The anti-patent constituency throughout the 1990s also asserted that inventors could too easily expand the reach of patents to include all manner of “equivalents” to what the patent actually discloses and claims as the invention. Patent owners, these anti-patent forces contended, could readily and unfairly extend the reach of their patents beyond anything the patent laid out as the true invention because the courts sanctioned a far too liberal application of the “doctrine of equivalents.”

By the start of the current decade, anti-troll forces were focused on optimizing their leverage against patent owners in order to force them to settle patent infringement claims on favorable terms. They began the cry that patent owners had undue leverage in such settlement discussions on account of the threat of injunctions that could shut down an accused infringer’s business. According to anti-trolls, the injunctive threat existed even in cases where the equities favor the accused infringer and counsel for denying the patent owner this extraordinary relief. The courts, they asserted, simply failed to undertake the type of equitable inquiry that should balance, among other equitable factors, the hardships between property owners and infringers.

Additionally, anti-trolls have long argued that patents are far too easy to get. The United States Patent and Trademark Office does not—under the anti-troll view of the world—adequately prevent the patenting of obvious discoveries. Anti-trolls have stated that courts also sustain too many patents that provide no more than trivial advances in technology. Anti-trolls believe that the “non-obviousness” requirement put into the patent statute in 1952 effectively has been read out of the statute (or at least marginalized) by the arbitrary judicial requirements that patents must be sustained unless there is a specific teaching, suggestion, or motivation that would have inevitably led skilled persons to the invention.

Another unfair leverage point for patent owners that has appeared in the anti-trolls’ litany is the alleged ease of pursuing punitive damage claims by asserting that the infringement of the patent was willful. Anti-trolls have argued that the “duty of due care” imposed by the courts on accused infringers has placed enormous obligations on them to avoid being tarred as willful. Anti-trolls have asserted that in many situations this can require the infringer to obtain an exculpatory opinion from patent counsel before commencing any allegedly infringing activity.

The anti-trolls additionally complain that compensatory damages in many patent cases are often vastly more than merely compensatory. Under the anti-troll worldview, compensatory damages have been based upon the entire value of an infringing product even if the value attributable to the invention relates only to a single aspect or component of the product. This means, again under the anti-troll worldview, that infringers have been forced to pay grossly excessive damages. The threat of runaway damages, the anti-trolls believe, has forced extravagant settlements of patent lawsuits (Research in Motion, over \$612 million in 2006 to settle BlackBerry

infringement claims) and has produced huge jury awards (Microsoft, \$1.5 billion verdict in 2007 on MP3-related patents incorporated into its Windows OS).

III. THE COURTS HAVE BEATEN CONGRESS TO THE PUNCH IN ADDRESSING THE ANTI-TROLLS' ANTI-PATENT AGENDA

While the foregoing indictment of the work of the courts in patent cases could hardly be more pervasive, do these allegations justify the House bill's reworking the patent statute to the benefit of the anti-trolls? The answer to this question is, of course, a resounding "no." The *courts* have done—or are ably doing—everything that needs to be done to address the foregoing allegations of a runaway, pro-troll U.S. patent law.

What has happened over the past decade with respect to allegedly unfair treatment of patent infringers? Quite simply, the two courts with the greatest influence on the interpretation of U.S. patent law, the Federal Circuit and the Supreme Court—with help from clear-thinking district court judges—have squarely addressed and redressed each allegation of tilting towards trolls. More remarkably, the courts have done so *promptly and decisively*. The federal courts, when presented with a cogent allegation of an unfair pro-troll tilt, have found appropriate judicial vehicles to redress the concern. The record of the past decade speaks for itself.

In the 1996 case *Markman v. Westview Instruments Inc.*, the Supreme Court affirmed an opinion of the Federal Circuit that the construction of claims in a patent case is not an issue that can go to the jury, but rather is reserved for the judges before whom the patent case is heard. This brought a categorical end to any concern that juries might be favoring patent owners and incorrectly crediting patent owners' errant contentions about the full reach of the patent's claims.

The Supreme Court's 2002 opinion in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.* laid down stringent rules for the application of the "doctrine of equivalents" in patent cases. In the years since *Festo*, the concern that patent owners could benefit from an elastic reading of their claims that routinely extended to cover alleged "equivalents" has disappeared in its entirety.

In 2006, in *eBay Inc. v. MercExchange LLC*, the Supreme Court took on the contention that the threat of injunctive relief was driving unreasonable and unwarranted settlements in patent cases. It reiterated that injunctions could issue only when equity required that such extraordinary relief be granted, casting aside the supposed Federal Circuit's rule in patent cases that, absent exceptional circumstances, injunctions should issue once infringement of a valid patent has been established.

In April 2007, the Supreme Court bolstered the standards for application of the non-obviousness requirement in *KSR International Co. v. Teleflex Inc.* The Court cast aside any mechanical application of a much-maligned "teaching-suggestion-motivation" threshold test for assessing non-obviousness. It then provided an analytical framework for non-obviousness

determinations designed to assure that patents will not be sustained on trivial differences from existing technology. Thus, when a patent is found valid today, an infringer can quibble little with the conclusion that it misappropriated a truly non-obvious discovery of the inventor.

In an August 2007 decision in *In re Seagate Technology, LLC*, the en banc Federal Circuit removed the specter that the threat of punitive damages could force accused infringers into unfair settlements of patent infringement allegations. It eliminated the longstanding “duty of due care” to avoid the knowing infringement of valid patents. Rejecting any inquiry into the subjective beliefs of the infringer, the court sharply limited any future findings of willful infringement (and enhanced damages based thereon) absent clear and convincing evidence that the infringer’s actions were objectively unreasonable.

Finally, and most significantly, the baseless nature of the concern that trolls somehow take home unwarranted damages in patent cases is best exemplified by Judge Rudi M. Brewster’s decisive action in *Lucent Technologies Inc. v. Gateway Inc.*, a case in the Southern District of California. Following a May 2007 jury verdict in favor of the patent owner Lucent, Judge Brewster initially ordered the infringers to pay \$1.53 billion in damages for infringement of two patents. However, merely three months later, Judge Brewster vacated the verdict after finding the jury lacked sufficient evidence to award damages based upon the entire market value of the infringing product. The anti-troll constituency pressed its case in Congress for amendments to the patent statute restricting compensatory damages—even though Judge Brewster was able to apply existing law, *without any congressional intervention*, to address oversized damages through a routine post-trial motion.

This remarkable string of judicial decisions over the past decade leads to an inescapable conclusion: time after time, the alleged abuses or excesses cited by the anti-trolls have not required a congressional fix. The consistent, winning formula for the anti-trolls has been to take a meritorious case into court and win on the merits—*under the existing patent statute*.

IV. THE EASY CHOICE IS THE RIGHT CHOICE FOR CONGRESS

What are the issues that the 110th Congress should tackle if its objective is true reform of U.S. patent law? Given the long history of judicial responsiveness on each of the above “lawsuit abuse” allegations, Congress should have an easy choice.

On one hand, Congress could kowtow to the anti-troll constituency that incorrectly sees today’s patent law as being tilted to favor owners of patents. It could attempt to rewrite patent law to favor infringers, notwithstanding what the courts have done magnificently over the past decade to fairly and decisively address allegations of overreaching by patent owners and lax application of existing standards for patenting.

Alternatively, Congress can do what the National Academy of Sciences and many other important constituencies have recommended—advance

much needed reforms that will produce greater harmony and objectivity in the patent law. Specifically, Congress could enact broadly supported measures that would provide patent owners and patent challengers alike the benefits of the best ideas from the best patent systems in operation around the world.

CONCLUSION

Since U.S. global competitiveness depends on international respect for IP rights of U.S.-based inventors, Congress should be given every encouragement to make the right choice, especially given that the right choice would appear to be such an easy one.

KSR'S EFFECT ON PATENT LAW

Stephen G. Kunin & Andrew K. Beverina* †

INTRODUCTION

The Supreme Court in *KSR International Co. v. Teleflex Inc.* clarified its 1966 decision in *Graham v. John Deere*, avoiding the sea change to a synergy-based standard that many had expected—and perhaps feared. *KSR* has raised the bar set in *Graham* for seeking patent protection—by providing a flexible test for obviousness—while simultaneously making it easier for accused infringers to defend themselves. Moreover, *KSR* will change the strategies of both patent prosecutors and litigators.

Before *KSR*, the Supreme Court's last major decision on nonobviousness under 35 U.S.C. § 103 was *Graham*, in which the Court established three factual inquiries for use in determining *prima facie* obviousness: (1) the scope and content of the prior art, (2) the differences between the prior art and the claims, and (3) the level of skill in the art. This *prima facie* case could be rebutted by objective evidence of non-obviousness, such as commercial success, long-felt but unsolved needs, and failure of others.

In applying the three *Graham* factors, the Federal Circuit has used the “teaching, suggestion or motivation” (“TSM”) test. A court using this Federal Circuit standard to determine obviousness would require a showing of some teaching, suggestion or motivation to combine the teachings found in the prior art references. This standard was designed to avoid finding claims obvious based on impermissible hindsight. Many decisions suggested that the motivation must come from the prior art itself rather than from the knowledge of a person having ordinary skill in the art (“PHOSITA”). Other cases, notably several decided after the Supreme Court granted certiorari in *KSR*, applied a more flexible approach and held that motivation to combine the information contained in the prior art can be found implicitly.

I. THE TSM TEST BEFORE AND AFTER *KSR*

The high tech industry, among others, sharply criticized the TSM test. First, these critics argued that the Federal Circuit—not the Supreme Court—created the TSM test and, in doing so, improperly added an additional step to the *Graham* analysis. Second, the critics claimed that even if the TSM test

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was a justified application of *Graham*, the Federal Circuit applied the test too rigidly, making it difficult to invalidate bad patents and thereby stifling innovation. The pharmaceutical industry, on the other hand, supported the TSM test as a way to protect chemical patents against impermissible hindsight analysis, since chemical inventions may involve only minor structural differences over the prior art and yet still produce unexpected results.

When the Supreme Court granted certiorari in *KSR*—by way of a unanimous non-precedential opinion—many observers predicted the Supreme Court would take the opportunity to reverse the Federal Circuit and overhaul nonobviousness law, in part by scrapping the TSM test. This prediction seemed prescient when, at oral argument, Justices described the TSM test as “gobbledygook” (perhaps a first in Supreme Court jurisprudence) and as “worse than meaningless.”

In *KSR*, the Court found four errors in the Federal Circuit’s nonobviousness jurisprudence:

1. The TSM test, while a helpful tool and not necessarily inconsistent with *Graham*, was applied too rigidly by the Federal Circuit, which looked only at the problem the patentee sought to solve;
2. The Federal Circuit wrongly assumed that a PHOSITA would consider only pieces of prior art designed to solve the same problem identified by the inventors;
3. The Federal Circuit erroneously held that a claim cannot be obvious merely because it would be “obvious to try.” Where there is a design need or market pressure to solve a problem and only a “finite number of identified predictable solutions, a person of ordinary skill has good reason to pursue the known options”; and
4. The rigid application of TSM “den[ied] factfinders recourse to common sense.”

The “common sense” of a PHOSITA will now be sufficient to support a finding of motivation and courts must consider whether a claimed invention is “more than the predictable use of prior art elements according to their established functions.”

Although the Court broadened the scope of the obviousness inquiry, it did not reject the spirit behind the TSM test. There still must be an “articulated reasoning with some rational underpinning to support the legal conclusion” of obviousness. The *KSR* Court understood that the TSM test sought to accomplish a worthy goal. The problem with *Graham* was that it did not provide courts guidance on how to articulate coherently the reason why the factual findings in the first three prongs would prompt a PHOSITA to make the claimed invention without resort to impermissible hindsight. The “articulated reasoning” approach provides a consistent, objective analysis framework. Determining if there is an articulated reason requires analysis of a number of factors, pro and con, such as teaching away, reasonable expectation of success, whether the results are simply from routine

experimentation, etc. These factors fill in the gaps of the *Graham* test and also guard against hindsight bias.

II. POST-KSR DECISIONS

The Federal Circuit issued a number of decisions while *KSR* was being considered and after its release. These were a mix of chemical and electrical/mechanical cases, the reasoning of which hints at how the Federal Circuit will apply *KSR*.

The first “combination” case decided post-*KSR* was *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.* Relying on the new standard, the Federal Circuit affirmed a finding of obviousness. The court found that a PHOSITA exercising common sense would have added a limitation that was missing from the two prior art references in order to achieve the goal of the patent. Under *KSR*, combining old elements according to their established functions is obvious, and thus the patent was invalid despite evidence of substantial commercial success.

The Federal Circuit’s treatment of chemical and pharmaceutical patents illustrates the difficulties surrounding the TSM test. In *Takeda Chemical Industries, Inc. v. Alphapharm Pty., Ltd.*, decided after *KSR*, the Federal Circuit rejected an “obvious to try” argument. Alphapharm argued that selecting “compound b” and altering it to arrive at the claimed invention were obvious steps. Takeda showed that compound b was one of hundreds of millions of compounds disclosed in the art and that references taught away from its use. The Federal Circuit held that, in chemical cases, it remains necessary to identify some reason why a chemist would “modify a known compound in a particular manner.” Alphapharm had failed to identify such a reason. The court also noted that, even if Alphapharm had succeeded in its *prima facie* case, secondary considerations would have rebutted their showing. These considerations included the district court’s finding that nothing in the prior art “suggest[ed] making the specific molecular modifications to compound b that are necessary to achieve the claimed compounds.”

This decision appeared to retreat from the earlier, heavily criticized result in *Pfizer, Inc. v. Apotex, Inc.* There the Federal Circuit, pre-*KSR*, had reversed the district court and invalidated a patent, holding that substituting different forms of salt was the result of routine experimentation and thus obvious to try. The Federal Circuit rejected the district court’s findings that results of the substitution were unexpected and that there was no reasonable expectation of success. As in *Leapfrog*, commercial success could not save the patent. Hopes that *Pfizer* would be quietly retired in favor of *Takeda* were dashed, however, when the court denied a petition to rehear *Pfizer* en banc (albeit with three judges dissenting). *Pfizer*’s continued vitality was demonstrated yet again when the court cited *Pfizer* in *Pharmastem Therapeutics, Inc. v. Viacell, Inc.* But while *Pfizer* remains good law, it is not necessarily inconsistent with *KSR*. The criticism of *Pfizer* is that it *misapplies*—not that it ignores—the reasonable expectation of success doctrine, which is always a consideration in “obvious to try” challenges.

III. LESSONS FOR PROSECUTION

KSR's gloss on the TSM test has already influenced patent prosecution, the administrative process of obtaining a patent from the U.S. Patent and Trademark Office ("PTO"). The PTO has drafted guidelines stating that the *Graham* factors still provide the basis for evaluating obviousness and that examiners must articulate a reason for an obviousness determination. The PTO has trained its examiners on these guidelines, which will be published in the Federal Register. The Board of Patent Appeals and Interferences ("BPAI") has issued a series of decisions that may serve as a template for examiners. The BPAI decisions emphasize *KSR*'s instruction that combinations must be more than the "predictable use of prior art elements according to their established functions" and that the obviousness analysis can "take account of the inferences and creative steps" of a PHOSITA rather than relying on "precise teachings directed to the specific subject matter of the challenged claim."

These guidelines and decisions indicate that applicants now must show why the steps taken by the applicant were not readily apparent. Reciting unexpected or superior results, functions or properties in the specification can show the examiner that the invention goes beyond a combination of known elements yielding predictable results. The guidelines and decisions also suggest applicants should avoid characterizing the field of the invention and avoid identifying problems recognized in the art to be solved in patent applications. An adverse party can use such statements against the patentee during litigation. Likewise, the patent application should avoid a detailed discussion of the prior art if possible, lest a court later seize upon it as evidence of a high level of skill in the art.

IV. LESSONS FOR LITIGATION

It will be some time before recognizable post-*KSR* trends emerge from the Federal Circuit's obviousness opinions. But *KSR* and post-*KSR* Federal Circuit decisions do provide some early guidance. A party challenging the validity of a patent should argue that the invention is merely an art-recognized solution to an art-recognized problem. The precise tactics for this strategy will vary according to the field of the invention, the quality of the prior art, and other factors. Meanwhile, a few general approaches to attacking patents are also clear:

- Establish a high level of skill in the art. The higher the level, the more technical the line of reasoning on which the claim can rely and the higher the threshold will be for the PHOSITA's "common sense;"
- Argue that the prior art had the same "goal" as the patent-in-suit;
- Argue that the invention is merely the optimization of a variable as a result of routine experimentation;
- Identify known reasons for improvement in the industry and argue that it would have been obvious to substitute an element in the prior art with

another to achieve desired results—making it cheaper, stronger, etc.; and

- Argue that the invention would have been “obvious to try” because only a finite number of identified, predictable ways exist by which to achieve the goal of the patent.

On the other hand, patentees will face some new challenges in fighting off an obviousness attack. For the next several years, most patent litigations will involve patents that were prosecuted before *KSR* and, therefore, might contain statements about the field of the invention and detailed discussions of the prior art. But the inclusion of these statements will not necessarily be fatal. To defend against obviousness, patentees can employ the following approaches:

- Argue that the prior art is non-analogous. For art to be analogous, it must be in the field of the applicant’s endeavor or reasonably pertinent to the problem to be solved. Although *KSR* broadened the second prong of this analysis, it did not eliminate the analogousness requirement; therefore, a patentee should argue that the art taken from outside the same field of endeavor of the patent relates to solving a different problem than the patent-in-suit solved;
- Argue hindsight or a failure to articulate a reason for the combination or both. Hindsight based on statements in the patent or patent application cannot be the reason for combining references—the patent cannot be used as a road map for creating hindsight obviousness;
- Argue that the results or the properties of the patent are either unexpected or superior so as to avoid the “combination of old elements” trap;
- Demonstrate how the prior art teaches away from the claimed invention; and
- Rely on secondary considerations, while recognizing that the Federal Circuit’s post-*KSR* decisions have given mixed weight to them.

CONCLUSION

The early crop of cases post-*KSR* seem to show that demonstrating a reasonable expectation of success when combining the information contained in the prior art is the key to establishing whether an apparent reason with rational underpinnings exists. A patent that combines known elements by known methods and that yields predictable results has every expectation of successfully being patented, but such a formulaic patent is vulnerable to attack. The truly inventive patents—where there was not a reasonable expectation of success and they have unexpected results or properties—will survive under *KSR*.