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Timothy J. Le Duc

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APPLES ARE NOT COMMON SENSE IN VIEW OF ORANGES: TIME TO REFORM KSR'S ILLUSORY OBVIOUSNESS STANDARD?

Timothy J. Le Duc¹

I. Introduction

KSR's² flexible standard for patentability has significantly impacted the U.S. patent system. During prosecution, the flexible, but illusory, KSR standard for obviousness, has made it more difficult to obtain patent protection.³ Many Examiners are unwilling to reasonably negotiate in view of KSR's overly discretionary standard.⁴ This has led many patent applicants to simply let pending applications⁵ go abandoned, rather than incur the increased cost of prosecution caused by KSR. Other applicants decide to take the plunge and appeal what they perceive as unreasonable applications of KSR, leading the quantity of appeals to the Board of Patent Inferences and Appeals to skyrocket.⁶

^{1.} The author, Timothy J. Le Duc, is Of Counsel at Akerman Senterfitt, and a former Navy nuclear submarine officer. Mr. Le Duc's practice focuses on patent prosecution and litigation in the electrical and computer arts. The opinions expressed herein are those of the author alone and not of Akerman Senterfitt.

^{2.} KSR Intn'l Co. v. Teleflex Inc., 550 U.S. 398 (2007).

^{3.} See, e.g., Intellectual Property Expert Group (ipeg), KSR, patent obviousness and USPTO practice, IPEG, http://www.ipeg.eu/blog/?p=1742 (noting allowance rate drop after KSR).

^{4.} Sheri Qualters, *Appeals Over Patents Skyrocket in 2009*, Law.com, http://www.law.com/jsp/article.jsp?id=1202432011964.

^{5.} See, e.g., David J. Rosenblum, Thoughts on Improving Patent Quality, available at www.uspto.gov/patents/law/comments/rosenblum14may2010.pdf ("[. . .i]t often happens that one needs to file an appeal to get an allowance or[...]alternatively, the assignee decides to just abandon the case despite the patent application having merit").

^{6.} See Sheri Qualters, Patent Appeals Board Projects 143 Percent Increase in Filings for FY 2009, Law.com, available at http://www.law.com/jsp/nlj/PubArticleNLJ.jsp?id=1202434147448&slreturn=1&hbxlogin=1.

Historically, re-examination of an issued patent during litigation was a little-used administrative procedure. Post-KSR, re-examination has become a primary defense for accused infringers, who would rather fight validity at the Patent Office than in the courts to take advantage of the Patent Office's perceived antipatent bias. For those accused infringers that decide to fight validity the traditional way – before judge and jury – KSR has made invalidating patents issued pre-KSR easier because of its "common sense"-based obviousness rationales. Within the analysis of secondary indicia of non-obviousness, KSR has contributed to the tendency to quickly discount evidence of commercial success, which in days gone past was a valuable gate keeper on impermissible hindsight analysis.

In view of the foregoing, KSR has not only created an enormous amount of economic waste, but has also damaged the U.S. patent system. As evidenced by the current economic conditions and unemployment rate, the illusory KSR standard is stifling innovation¹¹ – not exactly the strong patent system that a robust economy needs to thrive.¹²

^{7.} See, e.g., Sterne Kessler Goldstein Fox, reexamination, skgf.com, available at http://www.skgf.com/services.php?ServiceID=120.

^{8.} It should be noted that the current administration under Director Kappos is working to change the climate within the Patent Office. See, e.g., Kim Hart, Kappos: Change is coming to patent office, Hillicon Valley, available at http://thehill.com/blogs//hillicon-valley/605-technology/66647-kappos-change-is-coming-to-patent-office.

^{9.} See, e.g., In re Kubin, 561 F.3d 1351, 1361 (Fed. Cir. 2009) (invalidating claims as "obvious to try"); Boston Scientific v. Cordis, 554 F.3d 982, 991 (Fed. Cir. 2009) (invalidating claims as a "predictable variation" of the prior art); Perfect Web Techs., Inc. v. InfoUSA, Inc., 587 F.3d 1324, 1330 (Fed. Cir. 2009) (invalidating claims as "common sense").

^{10.} See, e.g., Media Techs. Licensing v. Upper Deck Co., 596 F.3d 1334, 1339 (Fed. Cir. 2010) (Rader, J., dissenting) (lamenting the majority "ignoring significant objective indicia of non-obviousness").

^{11.} Erin Coe, Low Patent Allowance Hurts Innovation: Experts 1, Law 360, available at http://www.kmob.com/pdf/LowPatentAllowanceHurtsInnovationExperts.pdf ("As federal examiners approve a smaller percentage of patent applications, company executives say they are seeing technology and drug innovation being stifled...").

^{12.} See, e.g., PatentlyBioTech, available at http://www.youtube.com/watch?

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Various factors may lead the U.S. economy out of the doldrums and contribute to sorely needed job creation. As former Federal Reserve Chief Alan Greenspan has opined, the most effective economic stimulus may be a rising stock market, along with the accompanying re-generation of investment capital.¹³ Another factor, as this paper suggests, may be a return to a workable framework within which to conduct the obviousness inquiry. The pre-KSR standard regarding motivation to combine, while not perfect, was a functioning legal standard and, in this author's opinion, relatively straightforward in application. On the other hand, KSR's "common sense"-based obviousness rationales which have overtaken the patentability inquiry are unwieldy and unworkable due to their completely unpredictable results.¹⁴

Patentability should not be dependent on which Examiner or judge is assigned to review the application or patent-in-suit, respectively. However, all too often, that is now exactly the case given the overly broad discretion finders of fact enjoy under *KSR*. In the author's experience, for any similarly complex application, one Examiner will be willing to consider narrowing claim amendments that properly distinguish the prior art. Conversely, another Examiner, while freely admitting that certain claim limitations are not disclosed by the prior art, will steadfastly refuse to budge, concluding that the application's entire subject matter is nothing more than common sense, and thus not patentable.¹⁵ The same can be said for judges—some conclude claims are obvious, while on the same facts others strongly disagree.¹⁶

v=tB3OROLi9IM (Chief Judge Rader espousing the economic incentives for a strong patent system).

^{13.} Adam Shell, *Stock rally might be best economic stimulus*, USA Today, *available at* http://www.usatoday.com/money/markets/2010-09-27-mart27_ST N.htm.

^{14.} See infra Part III.B.

^{15.} Examiners are sometimes put in a difficult position with the Patent Office's so-called "second pair of eyes" review, which makes prosecuting a patent application toward issuance extremely difficult. See, e.g., Gene Quinn, Second Pair of Eyes Fails Innovation in the US, IPWatchdog.com, available at http://ipwatchdog.com/2009/06/11/second-pair-of-eyes-fails-innovation-in-the-us/id=4074/.

^{16.} See, e.g., Media Tech Licensing v. Upper Deck Co., 596 F.3d 1334,

As a result, the determination of which inventions applicants—especially small businesses and start-ups—should pursue patent protection for has become a roll of the dice. Advising clients on the probability of successful prosecution of any patent application, either pre-filing or mid-prosecution, is reminiscent of a line out of Forrest Gump: "Life is like a box of chocolates. You never know what [flavor of Examiner] you're gonna get." 17

Not surprisingly, many potential applicants are now foregoing patent protection and the accompanying public disclosure in view of the skewed risk/reward presented by KSR. In other words, KSR has raised the average cost of patent prosecution—at least in the predictable arts—while simultaneously reducing the likelihood of receiving a patent having claims worthy of the invention at the end of the day.

One can easily surmise that foregone public disclosure on a grand scale will ultimately un-necessarily hinder the rapid explosion in idea exchange and technological advancement being facilitated by the internet.¹⁸ More importantly, the National Economic Council estimates that 25 percent of net job creation comes from small or start-up companies with fewer than 20 employees.¹⁹ Obviously, small companies need access to affordable patent protection to thrive. However, being of limited financial means, they are inevitably faced with the decision of what, if any, patents should be pursued. The heightened *KSR*

^{1339-40 (}Rader, J., dissenting); *see also* Honeywell Intern. v. U.S., 609 F.3d 1292, 1304-06 (Fed. Cir. 2010) (Mayer, J., dissenting).

^{17.} FORREST GUMP (Paramount Pictures 1994).

^{18.} But cf., Patent Office unsupported argument that pre-KSR standard "retards, rather than advances, new discoveries." Brief for the United States as Amicus Curiae, at 9, KSR International Co. v. Teleflex Inc., 550 U.S. 398, 127 S. Ct. 1727 (2007) (No. 04-1350).

^{19.} National Economic Council, A Strategy for American Innovation: Driving Towards Sustainable Growth and Quality Jobs, http://www.whitehouse.gov/administration/eop/nec/StrategyforAmericanInnovation/ ("Entrepreneurship has played, and will continue to play, an essential role in generating innovation and stimulating U.S. economic growth. Firms with fewer than 20 employees accounted for approximately 18 percent of private sector jobs in 2006, but nearly 25 percent of net employment growth from 1992 to 2005. Small businesses employ 30% of high tech workers such as scientists, engineers, and information technology workers.").

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standard for patentability has tilted the scale toward not seeking patent protection—given the unpredictability caused by the reality that common sense is a subjective concept that all too easily permits unreasonable obviousness rejections.

Accordingly, as long as Congress continues to seriously consider substantial patent law reform, ²⁰ this paper posits that the elephant in the room should be addressed first and foremost: the overly discretionary "common sense"-based standard for obviousness. A return to a workable framework for obviousness, such as the pre-KSR framework, is needed to restore a rudimentary level of predictability to both patent prosecution and litigation.

II. DEVELOPMENT OF "COMMON SENSE"-BASED RATIONALE

A brief review of the origins of the KSR obviousness standard is appropriate. A summary of a couple of the earlier Federal Circuit's decisions discussing the "common sense"-based obviousness rationale repeatedly proffered by the Patent Office over the years is a proper starting point. After which the Federal Circuit's *Teleflex* decision²¹ and the Patent Office's amicus brief critical thereof—which led to the current illusory obviousness standard—will be addressed.

A. Origins of Common Sense

When the KSR decision was released, many practitioners questioned the wisdom of a "common sense"-based standard for obviousness. ²² KSR's concept of explaining obviousness in terms of common sense has its origins, at least in part, in the Patent

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^{20.} See, e.g., William L. Warren, Patent Law Reform in the Works Again, Genetic Engineering & Biotechnology News, available at http://www.genengnews.com/gen-articles/patent-law-reform-in-the-works-again/3271/.

^{21.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282 (Fed. Cir. 2005).

^{22.} See, e.g., Practising Law Institute, Prior Art & Obviousness 2010: Current Trends in Sections 102 & 103, available at www.bskb.com/docs/PLI_Prior_Art_September_2010.pdf

^{(&}quot;The Pandora's box of KSR or 'what in the world were they thinking when they wrote that opinion").

Office's review Board, as evidenced by the *In re Zurko*²³ and *In re Lee*²⁴ decisions.

1. In re Zurko

The Federal Circuit's *In re Zurko* decision was published in 2001. There, the application related to a method for creating a secure computer environment.²⁵ Conventional secure computer environments employed so-called trusted software designed to preclude both unauthorized users and commands.²⁶ However, due to cost, it is often desirable to minimize the amount of trusted software in any system.²⁷

Claim one recited a method involving processing and verifying a trusted command using both trusted and un-trusted software.²⁸ A trusted command was initially processed by un-trusted software to create a parsed command.²⁹ Then, the parsed command was submitted to the trusted computer environment.³⁰ Execution of the parsed command required verification along a "trusted path."³¹ The parsed command was relayed to the user along the trusted path, and, if correct, the user could send a confirming signal back along the trusted path, allowing execution of the command.³² By performing the parsing step with un-trusted software, the requisite amount of trusted software was reduced.³³

The Board sustained the Examiner's obviousness rejections based upon two prior art references.³⁴ The primary reference was the UNIX operating system that utilizes both trusted and un-trusted

^{23.} In re Zurko, 258 F.3d 1379 (Fed. Cir. 2001).

^{24.} In re Lee, 277 F.3d 1338 (Fed. Cir. 2002).

^{25.} Zurko, 258 F.3d at 1382.

^{26.} Id.

^{27.} Id.

^{28.} Id.

^{29.} Id.

^{30.} Id.

^{31.} In re Zurko, 258 F.3d at 1382.

^{32.} Id.

^{33.} Id.

^{34.} Id.

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code.³⁵ With UNIX, certain commands may be parsed in an untrusted environment and then executed by calling a trusted service that operates within a trusted environment.³⁶ The secondary reference, FILER Version 2.20 ("FILER2"), repeated back potentially dangerous commands and requested user-confirmation before execution.³⁷ The Board concluded that an artisan would have been led to use the trusted command parsed in an un-trusted environment, as taught by UNIX, and display the parsed command to the user for confirmation prior to execution, as suggested by FILER2.³⁸

The applicant, Zurko, argued that no teaching in the prior art would have provided the motivation to *combine* the references to create the claimed invention.³⁹ The Board responded that the motivation to combine was "nothing more than good common sense."⁴⁰ According to the Board, because FILER2 generally taught the verification of dangerous commands, it suggested verification of UNIX's parsed command.⁴¹ Since the verification occurred within a trusted environment, it was "basic knowledge" that the verification would occur along a trusted path.⁴²

Before the Federal Circuit, Zurko maintained that the Board's obviousness decision was legally flawed.⁴³ The Federal Circuit agreed, finding that the deficiencies of the prior art could not be remedied by the Board's general conclusions about what was "basic knowledge" or "common sense."⁴⁴ Rather, concrete evidence is required to prevent the appellate review process from being rendered meaningless.⁴⁵

^{35.} Id.

^{36.} Id.

^{37.} In re Zurko, 258 F.3d at 1382-83.

^{38.} Id. at 1383.

^{39.} Id.

^{40.} Id.

^{41.} *Id*.

^{42.} In re Zurko, 258 F.3d at 1383.

^{43.} Id. at 1384.

^{44.} Id. at 1385.

^{45.} Id. at 1386.

2. In re Lee

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Subsequently, in 2002, undaunted by the *In re Zurko* decision, the Patent Office once again argued common sense in *In re Lee*. There, the application disclosed a method of automatically displaying functions for a video display device, and demonstrating to a user how to select and adjust the various functions.⁴⁶ The display and demonstration were achieved using computermanaged electronics, including pulse-width modulation and automatic fine-tuning.⁴⁷

The Examiner rejected the claims as obviousness, citing a combination of a Northup patent and a Thunderchopper Helicopter Handbook.⁴⁸ On appeal to the Board, the applicant, Lee, argued that the prior art provided no teaching, suggestion, or motivation to combine, and assuming *arguendo* that it did, any such combination still would not produce the claimed invention.⁴⁹ Perhaps recognizing that the Examiner had failed to provide sufficient justification to support combining the references, the Board held that it was not necessary to identify a specific source expressing a reason to combine.⁵⁰ Instead, as in *In re Zurko* mentioned above, the Board reasoned that obviousness may derive from common knowledge and common sense.⁵¹

In response to Lee's request for reconsideration, the Board stated that the Examiner had provided a well-reasoned discussion of why there was sufficient motivation to combine.⁵² However, the Federal Circuit disagreed, finding that the Examiner had merely generally stated that both Northup's function menu and Thunderchopper's demonstration mode were user-friendly program features, and from that high-level analysis had improperly concluded obviousness.⁵³

The Federal Circuit surmised that when patentability turns on

^{46.} In re Lee, 277 F.3d at 1340.

^{47.} *Id*.

^{48.} Id. at 1340-41.

^{49.} Id. at 1341.

^{50.} Id.

^{51.} *Id*.

^{52.} In re Lee, 277 F.3d at 1341.

^{53.} Id.

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the question of obviousness, a proper analysis must include evidence relevant to whether there is a teaching, suggestion, or motivation to combine the prior art.⁵⁴ The factual inquiry into whether or not to combine references must be thorough and based upon objective evidence of record.⁵⁵ Because the factual question of motivation is material to patentability, it cannot be resolved by subjective belief and unknown authority.⁵⁶

B. Federal Circuit's Teleflex v. KSR Decision

Fast forwarding a few years from the *In re Zurko* and *In re Lee* decisions, in 2005, the Federal Circuit issued its *Teleflex v. KSR* decision.⁵⁷ In one respect, *Teleflex* can be summed up as finding that the district court mischaracterized the teaching-suggestion-motivation ("TSM") test. The district court in *Teleflex* framed the question too generally in view of Federal Circuit jurisprudence. As explained below, the Federal Circuit phrased the question with more specificity and in terms derived from the claim language.

In *Teleflex*, the patent-in-suit related to a pedal assembly having an electronic position sensor.⁵⁸ The Federal Circuit quickly got to the heart of the matter, noting that under its long-time precedent, for obviousness to be based upon the teachings of multiple prior art references, some teaching, suggestion, or motivation must be established that would have led one of ordinary skill to combine the relevant references in the manner claimed.⁵⁹ The reason to combine may be found (1) explicitly or implicitly in the references themselves; (2) in the knowledge of those of ordinary skill; or (3)

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^{54.} *Id.* at 1343 (citing McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52 (Fed. Cir. 2001)).

^{55.} *Id.* (citing In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988) ("teachings of references can be combined *only* if there is some suggestion or incentive to do so") (emphasis in original)).

^{56.} Id. at 1343-44.

^{57.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282 (Fed. Cir. 2005).

^{58.} Id. at 284.

^{59.} *Id.* at 285 (citing Tec Air, Inc. v. Denso Mfg. Mich. Inc., 192 F.3d 1353, 1359-60 (Fed. Cir. 1999); Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1572 (Fed. Cir. 1996)).

from the nature of the problem to be solved.⁶⁰ The rationale for the foregoing is that "the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of [a reason] to combine."⁶¹ "[C]ombining references without evidence of such a showing simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight."⁶²

After comparing the prior art with the claim at issue (claim 4 of the patent-in-suit), the district court concluded that all of the limitations were known before the time of invention.⁶³ A prior art Asano patent disclosed all of the structural claim limitations with the exception of electronic control.⁶⁴ Additionally, electronic controls were generally known.⁶⁵

With respect to motivation to combine, the district court focused on the nature of the problem to be solved.⁶⁶ The specification of the patent-in-suit indicated that the invention was intended to design a less expensive, less complex, and more compact vehicle pedal assembly.⁶⁷ However, the district concluded that the prior art Rixon patent also "suffered from being too complex" because the pedal position sensor was located in the pedal housing, and its fore and aft movement with the pedal during use could cause wire failure.⁶⁸ The solution to the problem required an electronic control that did not move with the pedal.⁶⁹

The district court further concluded that one with knowledge of Asano and existing modular pedal position sensors would have

^{60.} Id. (citing Ruiz v. A.B. Chance Co., 234 F.3d 654, 665 (Fed. Cir. 2000)).

^{61.} *Id.* (citing *Ruiz*, 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions)).

^{62.} *Id.* at 285-86 (quoting *In re* Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999)).

^{63.} Id. at 286.

^{64.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282, 286 (Fed. Cir. 2005).

^{65.} Id. at 286-87.

^{66.} Id. at 287.

^{67.} Id.

^{68.} *Id*.

^{69.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282, 287 (Fed. Cir. 2005).

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been motivated to combine the two to avoid the problems of the prior art. ⁷⁰ For example, the prior art Smith patent expressly taught the desirability of attaching an electronic control to a fixed support member to avoid wire failure. ⁷¹

On appeal, the Federal Circuit concluded that an incomplete TSM test had been applied.⁷² The lower court reached its obviousness holding without making findings as to the specific understanding within the knowledge of a skilled artisan that would have motivated one with no knowledge of the invention to combine the prior art in the particular manner claimed.⁷³

In the Federal Circuit's view, none of the prior art relied upon addressed the same problem as the patent-in-suit.⁷⁴ The objective of the patent-in-suit was to design a smaller, less complex, and less expensive electronic pedal assembly.⁷⁵ Conversely, Asano was directed at solving a "constant ratio problem," and instead of addressing the problem to be solved by the patent-in-suit, Rixon suffered from it.⁷⁶ Moreover, the problem addressed by Smith, wire chafing, is different than reducing complexity and size.⁷⁷

C. Patent Office's Amicus Brief Critical of Federal Circuit

After the Supreme Court decided to review the Federal Circuit's *Teleflex* decision, a number of amicus briefs were filed. Notable briefs were filed by industry leaders, inventors, and patent law practitioners that favored affirming *Teleflex*. ⁷⁸ Briefs in support

^{70.} Id.

^{71.} Id.

^{72.} Id. at 288.

^{73.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282, 288 (Fed. Cir. 2005) (citing *In re* Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000); *In re* Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998)) (emphasis added).

^{74.} Id.

^{75.} Id.

^{76.} Id.

^{77.} Id. at 288-89.

^{78.} Supreme Court Docket, KSR International Co. v. Teleflex, Inc., No. 04-1350, Findlaw US Supreme Court Center, available at http://supreme.lp.findlaw.com/supreme_court/docket/2006/november/04-1350-ksr-v-teleflex.html.

were filed on behalf of 3M, General Electric, Proctor & Gamble, DuPont, Johnson & Johnson, Michelin, and ArvinMeritor.⁷⁹ Supporting briefs were also filed by the American Bar Association (ABA), the American Intellectual Property Law Association (AIPLA), and the United Inventors Association.⁸⁰

The Supreme Court ignored the majority of the briefs that favored upholding the Federal Circuit's decision. Instead, in KSR, the Supreme Court adopted the "common sense"-based obviousness standard argued for in the amicus brief filed by the Solicitor General and the Patent Office (hereinafter "Patent Office's amicus brief"). The Patent Office's amicus brief was premised upon somewhat questionable rationales, especially with the benefit of hindsight and in view of the upheaval caused by KSR.

1. Common Sense Revisited

As the old maxim goes – if first you don't succeed, try, try again. Given the opportunity to comment on the Federal Circuit's TSM test to the Court, the Patent Office apparently could not resist. In its amicus brief, the Patent Office once again argued that the standard for finding a motivation to combine in the obviousness inquiry should be based upon that illusory concept of good old common sense.⁸¹

The Patent Office's amicus brief attacked the Federal Circuit's *In re Lee* decision, detailed above, which held common knowledge and common sense are not a substitute for reliable evidence of a specific hint to combine references.⁸² According to the Patent Office:

[PTO's] obviousness inquiry should not require the PTO to conduct an unnecessary search for evidence showing a particular suggestion, teaching, or

^{79.} Id.

^{80.} Id.

^{81.} Brief for the United States as Amicus Curiae, at 18, KSR International Co. v. Teleflex Inc., 550 U.S. 398, 127 S. Ct. 1727 (2007) (No. 04-1350).

^{82.} Id. at 14, n. 6 (citing In re Lee, 277 F.3d 1338, 1344-1345 (2002)).

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motivation to make insubstantially innovative combinations of elements that are known in the prior art. PTO should instead be allowed to bring to bear its full expertise—including its reckoning of the basic knowledge and common sense possessed by persons in particular fields of endeavor—when making the predictive judgment whether an invention would have been obvious to a person of ordinary skill in the art."⁸³

The KSR Court agreed with the above rationale and adopted a "common sense"-based standard for obviousness, even parroting portions of the Patent Office's amicus brief.

In hindsight, the overly discretionary KSR standard promoted by the Patent Office in In re Zurko, In re Lee, and ultimately KSR has created a substantial amount of economic waste at a time the global economy can ill afford it. The evidence generated in the aftermath demonstrates that the KSR decision was not the road to take if the ultimate goal is a strong U.S. patent system contributing to economic prosperity and job growth.

With respect to patent prosecution, KSR has caused, inter alia, the abandonment of applications,⁸⁴ an increase in the average cost of prosecution due to skyrocketing numbers of appeals to the Board,⁸⁵ a dramatic drop in the allowance rate by some estimates,⁸⁶ and countless inventors foregoing the application process. During patent litigation, KSR has made invalidation of issued patents easier based upon its "common sense," obvious to try," and

^{83.} Id. at 18.

^{84.} See, e.g., Rosenblum, Thoughts on Improving Patent Quality, at www.uspto.gov/patents/law/comments/rosenblum14may2010.pdf.

^{85.} Qualters, supra note 4.

^{86.} See, e.g., Coe, supra note 11.

^{87.} See, e.g., Perfect Web Tech. v. InfoUSA, Inc., 587 F.3d 1324, 1328 (Fed. Cir. 2009) ("the Supreme Court observed that common sense can be a source of reasons to combine or modify prior art references to achieve the patented invention").

^{88.} See, e.g., In re Kubin, 561 F3d 1351, 1360 (Fed. Cir. 2009) (noting that the "Supreme Court repudiated as 'error'...'The same constricted analysis led the Court of Appeals to conclude, in error, that a patent claim cannot be proved

"market forces" rationales. 89 The higher standard for patentability under KSR has also dramatically increased the number of issued patents undergoing re-examination at the Patent Office. 90

Of import, the Patent Office's amicus brief ignored the Federal Circuit's well-founded concerns with a "common sense"-based legal standard for obviousness outlined years earlier in *In re Lee*. There, the Federal Circuit noted that it is improper to conclude that a person of ordinary skill would have been led to a given combination of references by simply using "that which the inventor taught against its teacher." ⁹¹

In the Federal Circuit's view, the foundation of judicial deference to the rulings of agency tribunals is that the tribunal has specialized expertise, such that when reasoned findings are made, a reviewing court may confidently defer to the agency's expertise. However, conclusory "common knowledge and common sense" statements simply cannot constitute specialized knowledge and expertise. Factual findings must extend to all material facts and be documented on the record – lest the "haze of so-called expertise" acquire insulation from accountability. Somehow the Federal Circuit's pragmatic concerns that what constitutes "common sense" varies from one person to the next were lost on the Court in KSR.

obvious merely by showing that the combination of elements was 'obvious to try,"" at 1359).

^{89.} See, e.g., Friskit Inc. v. RealNetworks Inc., 306 Fed. Appx. 610, 617-18, 2009 WL 59182, at *6 (Fed. Cir. 2009) (citing <u>KSR</u>, 127 S. Ct. at 1740 (cautioning against rewarding obvious variations precipitated by "design incentives and other market forces")).

^{90.} W. Karl Renner & Thomas A. Rozylowicz, *Re-examination Request: To File Or Not to File?* 3, Law 360, *available at http://www.fr.com/Files/Uploads/attachments/20090514IPLaw360ArticleReexam.pdf* (". . . [t]he recent KSR decision, which yielded new USPTO examination guidelines, ha[s] dramatically affected rates of allowance in patent matters including re-examination").

^{91.} *In re* Lee, 277 F.3d at 1344 (citing W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983)).

^{92.} Id.

^{93.} Id.

^{94.} *Id.* (quoting Baltimore and Ohio R.R. Co. v. Aberdeen & Rockfish R.R. Co., 393 U.S. 87, 91-92 (1968)).

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2. "Substantial Obstacles" Alleviated by Modern Databases

In criticizing the Federal Circuit's *Teleflex* decision, the Patent Office's amicus brief contended that it is too much of a burden to craft a proper TSM argument. The Federal Circuit's test creates a *substantial obstacle* to showing that a claimed invention that simply combines known features without substantial innovation would have been obvious, because the test requires the party challenging the patent to come forward with affirmative evidence in the prior art of a teaching, suggestion, or motivation to combine the features."

In hindsight, this key underlying rationale for the KSR decision is outdated. Any so-called "substantial obstacle" has been alleviated by modern technology. Since the Patent Office's amicus brief was filed in mid-2006, more computer-searchable databases of both patent and non-patent prior art references have been developed. For instance, Google Patents exploded onto the scene at the end of 2006 and rapidly gained popularity during 2007.

This author posits that with respect to motivation to combine, with today's easy-to-use computer-searchable databases, one can typically quickly find a reference in the pertinent field that, at a minimum, provides an arguable suggestion or motivation within the knowledge of an ordinary artisan to combine various references in the manner claimed. Of course, this is assuming that one actually exists—which should be the case if the alleged invention is truly nothing more than common sense.

As an example, noted above in *Teleflex*, the Federal Circuit opined that the patent-in-suit was determined to address the problem of designing a less expensive, less complex, and more compact assembly design.⁹⁷ A simple search on the Google Patents website run on the search terms "less expensive complex compact pedal assembly sensor" returned several prior art patents.

The first patent listed in the author's search results was U.S.

^{95.} Brief for the United States as Amicus Curiae, at 12, KSR International Co. v. Teleflex Inc., 550 U.S. 398, 127 S. Ct. 1727 (2007) (No. 04-1350).

^{96.} Id. at 14. (emphasis added)

^{97.} Teleflex v. KSR Int'l, 119 Fed. Appx. 282, 284 (Fed. Cir. 2005).

Patent No. 5,934,152 to Aschoff et al. and entitled "Accellerator Pedal Module" (hereinafter Aschoff). Aschoff was intended to provide for mass production of accelerator pedals such that "decisive cost advantages result." A more "simple, economical manufacture" resulted from the sensor being associated with a premountable unit. The accelerator pedal could be produced as a "compact structural unit," resulting in the space required for the accelerator pedal being advantageously reduced.

Therefore, Aschoff was reasonably intended to address the same problem as the patent-in-suit in *Teleflex*. The argument can certainly be made that based upon the teachings of Aschoff, one of ordinary skill would have been motivated to modify Asano with conventional sensors to achieve a less expensive, less complex, and more compact system, which may have convinced the Federal Circuit in *Teleflex*. In any event, the point is, with ever more computer-searchable databases of prior art becoming available via the internet, any burden or obstacle associated with framing a proper TSM argument continues to be diminished, if not substantially alleviated.

3. Hindsight Bias Against "Simple" Technology

Laced within the Patent Office's amicus brief was a bias against what the Patent Office of the time viewed as non-worthy inventions. The Patent Office belittled the patent-in-suit by asserting that the "technology at issue in this case is relatively simple and its evolution is straightforward." The Patent Office contended that the Federal Circuit's TSM test "extends patent protection to non-innovative combinations of familiar elements." [I]t grants patent applicants unjustified rewards for disclosing non-innovative subject matter." [1]

^{98.} U.S. Patent No. 5,934,152, Col. 1, l. 65 – Col. 2, l. 8.

^{99.} Id. at Col. 2, 1l. 43-50.

^{100.} *Id.* at Col. 2, ll. 9-14.

^{101.} Brief for the United States as Amicus Curiae, at 4, KSR International Co. v. Teleflex Inc., 550 U.S. 398, 127 S. Ct. 1727 (2007) (No. 04-1350).

^{102.} Id. at 9.

^{103.} Id. at 16.

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The Patent Office's amicus brief asserted that the "Federal Circuit's test departs from this Court's precedents because it treats a particular method of demonstrating obviousness – namely, proof that the prior art taught, suggested, or provided a motivation for combining the prior art references – as the *exclusive* means of showing obviousness." To the contrary, this Court has found that a claimed invention would have been obvious based on the small difference between the prior art and what the inventor claimed, without any mention of teaching, suggestion, or motivation." Suggestion, or motivation."

i. Procedural Mechanisms Deal With Non-worthy Innovations

Regarding allegedly simply and straightforward inventions, several procedural mechanisms were already in place to prohibit unworthy ideas from receiving patent protection. For instance, Official Notice may fill in the so-called "gaps" if the difference between the prior art and claimed invention are trivial. ¹⁰⁶

The Patent Office's brief implied that somehow the Federal Circuit's *Teleflex* decision had vanquished the concept of Official Notice. ¹⁰⁷ In reality, *Teleflex* addressed the issue of combining multiple references, and not trivial modifications to either individual references or to combinations once made. Contrary to the bold assertion in the Patent Office's amicus brief, *Teleflex* did not disrupt the notion that an alleged invention may be obvious "based on the small difference between the prior art and what the inventor claimed." ¹⁰⁸

Moreover, the risk of so-called clearly "bad" patents being allowed continues to be diminished by modern technology. In the old days, Examiners were forced to search for pertinent prior art

^{104.} Id. at 13.

^{105.} Id. at 13, n. 5.

^{106.} MPEP § 2144.03. Also, the concepts of design choice and inherency may be used if the claims cover obvious variations of the prior art or features necessarily disclosed by the prior art, respectively.

^{107.} Brief for the United States as Amicus Curiae, at 13; 13, n. 5; 18, n. 8, KSR International Co. v. Teleflex Inc., 550 U.S. 398 (2007) (No. 04-1350).

^{108.} *Id.* at 13, n. 5.

via hardcopies or microfiche. Today, the computer-searchable data bases enjoyed by Examiners in and of themselves are strengthening the quality of issued patents. The same can be said for the ever increasing exchange of information between various patent offices around the globe.

ii. Innovations in Predictable Arts Deserve Patent Protection

Many small businesses rely upon receiving patent protection for their innovations in the predictable arts to reap the financial rewards of their efforts. As the Director of the Patent Office acknowledged, many patent applications lead directly to job creation. In the current economic climate, this author suggests that now is not the time, if there ever was one, as a policy standpoint to prohibit commercially successful innovations from receiving patent protection.

Media Technologies is informative on the problems with a "common sense"-based obviousness standard, including the tendency to easily dismiss innovations in non-technical areas using hindsight analysis. There, Chief Judge Rader emphatically disagreed with the majority's finding the claims obvious:¹¹⁰

Relying on wholly irrelevant prior art and ignoring significant objective indicia of non-obviousness, this court substitutes its judgment on patentability for that of a jury. Lurking just beneath the surface of this court's blindness to the underlying facts supporting non-obviousness is a bias against non-technical arts. No doubt, the invention of the transistor or of the polio vaccine came from more

^{109.} See, e.g., Erin Coe, Tight Budget May Delay Kappos' Plan for USPTO, Law 360, available at http://www.law360.com/articles/150390 (quoting Director David Kappos commenting on the backlog of patent applications: "It's tragic because so many of the patent applications represent American jobs – jobs that are not being created because we are sitting on these applications").

^{110.} Media Techs. Licensing v. Upper Deck, 596 F.3d 1334, 1339-40 (Fed. Cir. 2010).

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scientific fields and contributed more to the welfare of humanity. This court, however, cannot overlook that many individuals invest vast energies, efforts, and earnings to advance these nontechnical fields of human endeavor. Those investments deserve the same protection as any other advances. The incentives for improvement and the protection of invention apply as well to the creator of a new hair-extension design as to a researcher pursuing a cure for cancer.¹¹¹

In *Media Technologies*, up until the time that the patent-in-suit was filed, not a single reference disclosed the concept of the invention of attaching a cut-up piece of a memorabilia item, such as an authentic player's jersey, to a baseball card. The invention was initially met with skepticism, because under conventional wisdom, the value of a particular memorabilia item depended on its physical condition. The notion of cutting up a player's jersey into pieces and attaching the pieces to a trading card would surely destroy more value than would be created.

Still, after the inventor approached the accused infringer with his idea, the company began selling limited edition cards with accompanying cut-up jersey pieces affixed adjacent to a player's image. The new card product quickly became a hit and received praise throughout the formerly skeptical industry. With various marketing campaigns touting the invention as their focal point, the newly-released cards became an industry staple. 117

In Chief Judge Rader's view, without even so much as a cursory review of the unexpected results, skepticism, commercial success, or the flattery of copying, the majority concluded in a passing fashion that the invention would have been obvious.¹¹⁸ However,

^{111.} Id.

^{112.} Id. at 1340.

^{113.} *Id*.

^{114.} Id.

^{115.} Media Tech., 596 F.3d at 1340.

^{116.} Id.

^{117.} Id.

^{118,} Id.

the defendants' failure to proffer any reference in the relevant field of invention was especially telling given the century-old history of the trading card industry.¹¹⁹

III. THE NEED FOR PATENT LAW REFORM

As Congress continues to consider Patent Law Reform, perhaps the best starting point is undoing the KSR standard. The U.S. economy depends upon a strong patent system. The overly discretionary KSR standard has weakened the U.S. patent system by providing unpredictable results, even in light of commercial success. Although the Patent Office has issued an updated set of examination guidelines in view of KSR, those guidelines read like a playbook listing every possible way to use KSR's "common sense"-based obviousness rationales to reject the claims as obvious.

A. Strong Patent System Drives Economic Growth

Although some applauded the *KSR* ruling, those who did were arguably ignorant of the realities in the marketplace. Patent law is the classic example of an intellectual property regime modeled on a utilitarian framework, creating a limited monopoly to encourage innovation. The public benefits from the disclosure of the patented invention, which after the patent expires, becomes part of the public domain. 121

Thorough investigations on the positive economic impact of patents have been preformed. For instance, in his detailed review of the role of the patent system in the so-called first Industrial Revolution in Great Britain, Harry Dutton concluded that the patent system was instrumental in fostering almost all of the key technologies of the era. Not surprisingly, a general consensus

^{119.} Id.

^{120.} Robert P. Merges et al., INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE, 23 (2d ed. 2000).

^{121.} Id.

^{122.} Robert P. Merges, PATENT LAW AND POLICY: CASES AND MATERIALS, 7 n. 17 (2d ed. 1997) (citing Harry Dutton, The PATENT SYSTEM AND INVENTIVE

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exists that "a strong patent system, including an appropriately funded and well-functioning Patent Office, fosters innovation that drives economic growth and creates jobs." ¹²³

In short, the U.S. economy is heavily dependent on its patent system – a system that many foreign countries envy¹²⁴—or at least they used to. Prior to KSR, the European standard for patentability in practice was higher than that of the U.S. As a result, many applicants would forego even applying for patent protection in Europe due to the cost/potential benefit analysis. Arguably, the higher patentability standard in Europe hindered economic growth and prosperity there, as compared with that of the U.S., over the years.

Troubling since KSR, however, is that the author and his colleagues have experienced patents that have been allowed in Europe, while corresponding U.S. applications have become stuck in U.S. Patent Office molasses arguing the elusive concept of common sense. Even with substantially narrower claims, the corresponding U.S. applications have been abandoned or forced to incur increased prosecution costs. In the author's opinion, it is not in the U.S.'s best interest to have a standard for patentability that is stricter than that of Europe.

B. A Common Sense-Based Legal Standard Lends Itself to Unpredictability

The KSR decision has removed an appropriate level of predictability with respect to the obviousness determination. For obvious reasons, the author cannot identify specific patents applications that have received, in his view, rejections based upon unreasonable applications of "common sense." However, post-

ACTIVITY DURING THE INDUSTRIAL REVOLUTION, 1750-1852 (1984)).

^{123.} Vincent LoTempio, *Patent Reform Act of 2010: An Overview, available at* http://www.lotempiolaw.com/tags/patent-reform-act-of-2010 (citing April 20, 2010 letter from Commerce Secretary Gary Locke).

^{124.} Eric Yeager, Judge Rader Tells PTO Day Group That Harsh Rhetoric in Patent Debate Needs Toning Down, 73 PAT. TRADEMARK & COPYRIGHT J., Dec. 8, 2006, http://ipcenter.bna.com/pic2/ip.nsf/id/BNAP-6WAK96?Open Document (Chief Judge Rader noting foreign intellectual property communities "hold the U.S. system up as a paradigm.").

KSR Federal Circuit decisions can be analyzed as being somewhat analogous for the proposition that reasonable persons can disagree as to what constitutes common sense.

As detailed above, in *Media Technologies*, Chief Judge Rader strongly disagreed with the majority that found the claims obvious. Similarly, in *Bayer*, Judge Newman strongly dissented from the majority's obviousness holding, characterizing the claimed invention as "indisputably unobvious." There, the invention related to formulating an oral contraceptive active ingredient, drosprenone, in a micronized manner to resist degradation once ingested. 126

In Judge Newman's view, the evidence showed, without contradiction, that prior to the invention, it was known that drospirenone rapidly degraded in stomach acid, and that scientists working in this field believed that the product required an enteric coating to prevent degradation.¹²⁷ The majority ignored the testimony of the scientists themselves, the knowledge concerning the product's instability in acid, and the textbook teachings to find the claimed invention "obvious to try".¹²⁸ In other words, the majority ruled that scientists should have "tried" that which they believed would fail.¹²⁹ However, prior to the invention, there was "no evidence to reasonably suggest that micronized drospirenone was likely to be usable, with a 99+ percent consistency of effectiveness, without any protection from degradation by stomach acid."¹³⁰

In sum, Judge Newman opined that the law does not hold it "obvious to try" experiments that contravene conventional knowledge, and that are not deemed reasonably likely to succeed.¹³¹ Rather, the majority's obviousness ruling was an example of "the hindsight science of judges."¹³²

^{125.} Bayer Schering Pharma AG v. Barr Lab., 575 F.3d 1341, 1350 (Fed. Cir. 2009) (Newman, J. dissenting).

^{126.} Id.

^{127.} Id.

^{128.} Id.

^{129.} Id.

^{130.} Id. at 1351.

^{131.} Bayer, 575 F.3d at 1351.

^{132.} Id.

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C. New Examination Guidelines

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In September 2010, the Patent Office issued revised examination guidelines under KSR. The 2010 KSR Guidelines Update ("Guidelines") provides several teaching points based upon post-KSR Federal Circuit decisions. Although a few of the decisions mentioned held the claims valid, the long-winded Guidelines seemingly provide every possible reason to reject claims as obvious under post-KSR Federal Circuit law.

In the Patent Office's defense, the *Guidelines* seemingly attempt to downplay *KSR's* "common sense." The *Guidelines* mention common sense only a handful of times, and state that "[c]ommon sense may be used to support a legal conclusion of obviousness so long as it is explained with sufficient reasoning." This language implies that the leadership within the Patent Office itself may be attempting to reduce discretion under *KSR*, and promote patentability, instead of ever more appeals to the Board.

Still, that does not alleviate the issue of having a "common sense"-based standard in the first place. Of course, the *Guidelines* are not the law. More importantly, in the author's experience, post-KSR, it has become more common for Examiners to issue rejections to the independent claims based upon combinations of three or four references, and modify that combination to reach the pending claims. These types of obviousness rejections are arguably the essence of hindsight – using the patent application itself to piece together the invention using multiple references in a disjointed manner.¹³⁵ In the author's opinion, these types of

^{133.} Examination Guidelines Update: Developments in the Obviousness Inquiry After KSR v. Teleflex, 75 Fed. Reg. 53,643 (Sep. 1, 2010).

^{134.} Id. at 53,659.

^{135.} In the author's opinion, just because one understands how the invention works, does not make it obvious. See, e.g., In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999) ("Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability — the essence of hindsight"); But cf. KSR, 550 U.S. at 402 ("It is common sense that familiar items may have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle").

unwieldy rejections further create (1) an unacceptable level of unpredictability with respect to patentability, and (2) a heightened level of patentability that hinders economic activity and job growth – especially with respect to smaller companies dependent upon a handful of core innovative concepts.

As an alternative to Congressional reform, perhaps instead of issuing new examination guidelines, the Patent Office should drop the famously anti-patent second pair of eyes routine. ¹³⁶ In its stead, the Patent Office should consider developing an internal reality check – a pro-patent second pair of eyes to objectively review rejections to independent claims involving combining three or more references, and then subsequent "common sense" modification. With a second pair of eyes favoring patentability instead of obviousness, maybe the quantity of appeals and the cost of prosecution that applicants are forced to endure under KSR would be reduced.

IV. CONCLUSION

Under KSR's "common sense" underpinnings, "beauty is in the eye of the beholder." The illusory KSR standard for patentability has created an unacceptable level of unpredictability. Further, the Federal Circuit's real world concerns about having reviewable evidence for a reason to combine several references in the particular manner claimed have come to fruition. As in Media Technologies and Bayer, one finder of fact's patentable subject

^{136. &}quot;The culture of rejection traces its roots to 1998, when it became possible for the first time to patent a 'business method,' such as innovations in tax preparation or e-commerce transactions. To oversee the newly patentable area, the agency added a layer of inspection in 2000, a 'second pair of eyes,' to review each approved business-method patent." JSOnline, *Patent Rejections Soar As Pressure on Agency Rises, available at* http://www.jsonline.com/business/53367952.html. Since, the "PTO has been quietly expanding its patent quality review program." PatentlyO, *PTO: Second Pair of Eyes and Quality Review, available at* http://www.patentlyo.com/patent/2007/04/pto_second_pair.html.

^{137.} The Phrase Finder, *Beauty is in the eye of the beholder, available at* http://www.phrases.org.uk/meanings/59100.html (crediting Margaret Wolfe Hungerford, *Molly Bawn*, 1878).

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matter is now another's common sense.

In hindsight, the rationales proffered by the Patent Office for adopting a "common sense"-based obviousness standard in the first place have been substantially alleviated or were overstated. The Patent Office's "substantial obstacle" argument is now a relic of the past. With modern computer searchable databases, it is typically straightforward to put forth a reasonable TSM rationale – assuming one exists. The concerns that a rigid application of the TSM test provides patent protection for non-worthy inventions were overstated. Several Patent Office procedural safeguards were already in place to fill-in the trivial "gaps" between the prior art and the claimed invention.

The mounting evidence indicates that KSR is stifling job creation and promoting economic waste in the form of (1) abandoned patent applications; (2) substantially more appeals to the Board during prosecution; (3) increased re-examination of issued patents; and (4) easier invalidation of patents issued pre-KSR during litigation. In the author's experience, potential applications are being foregone by applicants, hindering technological advancement. This is especially troubling for small businesses in the non-predicable arts that need patent protection to drive the economy back to becoming an overall net creator of jobs.

Therefore, as long as Patent Law Reform continues to be considered, Congress should also address the obviousness framework. A return to a reasonable and workable obviousness standard would be beneficial to both the economy and the patent system.

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