

The Patentability of Technology in the Information Age: How the Checks and Balances of the Courts in a Patent Suit Pathway Stimulate Innovation in the Field of Artificial Intelligence

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Introduction

In *Bilski v. Kappos*, the Supreme Court stated that the “[Information] Age...raises new difficulties for the patent law,” one of which is “striking the balance between protecting inventors and not granting monopolies over procedures that others would discover by independent, creative application of general principles.”¹

This article examines how the checks and balances of the courts in a patent suit pathway promote efficiency in the Information Age. It evaluates how the patent appellate pathway influenced the recent changes to software patents and discusses the beneficial impacts these changes have on the field of Artificial Intelligence. Further, it examines how these changes will likely increase efficiency in Artificial Intelligence by incentivizing investment in machine learning technology, such as Machine Learning and Deep Learning, in order to improve Artificial Intelligence software patents.^{2, 3, 4, 5} In particular, industries that rely on Artificial Intelligence software will benefit from investment in patent protection in light of recent patent law cases such as *KSR*, *Teva*, *McRO*, and *Amdocs*, which, taken together, increased the quality and certainty of software patent rights. This article will discuss these recent cases through the lens of the varying levels of technical and legal specialization within the appellate patent framework of Article Three courts. It will further consider how this framework decreases detrimental reliance on software patents in the Artificial Intelligence field.^{6, 7, 8}

A patent lawsuit is first reviewed by a generalist United States District Court, appealed to the specialized Federal Circuit, and given a final generalist review by the United States Supreme Court.⁹ This framework therefore provides an important system of checks and balances.

The Federal Circuit

The United States Court of Appeals for the Federal Circuit (“Federal Circuit”) is a specialized appellate-level court with jurisdiction to hear patent cases.¹⁰ The Federal Circuit was established in 1982 as a result of the merger of the United States Court of Customs and Patent Appeals and the appellate division of the United States Court of Claims.¹¹ In the Federal Circuit, jurisdiction is based on patent law subject matter. This is unlike the other federal Courts of Appeals, where jurisdiction is based on personal jurisdiction or geographic location.^{12, 13}

The Appellate Path of a Patent Suit

A patent lawsuit is first reviewed by a United States District Court, and can be appealed to the Federal Circuit, and thereafter to the United States Supreme Court.¹⁴ As a practical matter, the Federal Circuit is viewed as the court of last resort, as it is rare for the United States Supreme Court to grant certiorari to review patent cases.¹⁵ Since the Federal Circuit was established in 1982, the Supreme Court has heard approximately one case per year.¹⁶ However, in recent years there has been an uptick in the number of patent law cases the Supreme Court has accepted.^{17, 18} The influence of these cases elucidates the drastic difference in approach taken by the Supreme Court, as compared to the specialized Federal Circuit, with regard to impacting innovation, public disclosures, and the filing of patents.^{19, 20} Specifically, *KSR Int’l Co. v. Teleflex Inc.* and *Teva Pharm. USA, Inc. v. Sandoz, Inc.* highlight this difference.

Why Do We Need the Federal Circuit?

One may ask what makes patent law so unique a subject matter that it necessitated the creation of the specialized Federal Circuit for the primary purpose of reviewing patent litigation matters. To answer this question, one must first look to the nature of a patent in order to determine what distinguishes this subject matter from other types of legal issues.

Promoting the Progress of Science and Useful Arts

35 U.S.C. §154(a)(1) states that a patent is “the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.”²¹ Patent rights include a 20-year limited right to exclude others from making and using the rights present in the patentee’s invention.²² The Patent and Copyright Clause of the United States Constitution establishes the intellectual property rights to a patent.²³ It provides that Congress shall have the power to promote the progress of science

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and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.²⁴ Patents were established in order to incentivize innovation and to promote the progression of technology by granting a 20 year exclusive right, or limited monopoly, to the inventor.²⁵ This monopoly gives the inventor the opportunity to generate licensing revenues from the patented invention, which provides the incentive to invest in discovery, research, and development.²⁶

Another advantage of the patent system is that it encourages inventors to make full disclosure of their technologies, which they would have otherwise withheld from the public as trade secrets.²⁷ Trade secrets decrease the public's exposure to innovation and hinder the improvement of technology as remarkable new inventions remain outside of the public's awareness.²⁸ Thus, in the absence of the patent system, scientists would partake in unnecessary, duplicative research in order to solve the same problems that the trade secret already solves, resulting in a decreased rate of innovation in the United States.²⁹ Additionally, it would be financially advantageous for competitors to reproduce inventions already in the market, rather than invest in costly research and development. Such an approach would decrease the inventors' incentive to innovate, as the inventors would no longer enjoy a competitive market advantage. As a result, this decreased incentive to innovate would ultimately lead to a significant decline in inventors' share in the market, leading to decreased innovation.

Patentability

The United States Constitution grants the broad power to "promote the progress of science and useful arts."³⁰ This patent power is more specifically defined in 35 U.S.C. § 101, which states that a patent must be a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement."³¹ In order to be "new" and "useful," as required by 35 U.S.C. § 101, the subject matter for which the inventor is seeking patent protection must be novel and more than a simple variation of the prior art in the industry.³² Invention is an art form that requires ingenuity and creativity beyond mere predictable improvements.³³ This often requires viewing technological problems through an untraditional lens and solving traditional problems in an untraditional way.³⁴ This ingenuity often makes patents difficult to understand and adds an additional layer of complexity to an already specialized technological field.³⁵

Additionally, patents are interpreted using the standard of by "one of ordinary skill in the art."³⁶ This is a much more specialized, case-specific standard than the objective, reasonable person standard that is applied to most other areas of law.³⁷ For example, the standard by which a patent is interpreted could be from the perspective of a person with a Ph.D. in electrical engineering. The

complexity of the subject matter being interpreted in the patent raises the question: should this highly specialized body of patent law be interpreted by generalist judges, who typically do not possess the technical background of "one of ordinary skill in the art" relevant to the invention, or should the specialized Federal Circuit play a larger role in interpreting and enforcing patent law?

Software as Patentable Subject Matter

The software industry has been deeply impacted by the Supreme Court's decision in *Alice Corp. Pty. v. CLS Bank Int'l*, where the Court ruled that implementation of an abstract idea on a computer is not patent eligible subject matter.^{38, 39} Post-*Alice* there was a 75% decrease in the granting of software related patents, including business method patents, resulting in a decrease in issued software patents.^{40, 41}

In response to the decrease in issuance of software patents, the Federal Circuit used *McRO, Inc. v. Bandai Namco Games Am. Inc.* as a way to overcome the software patent obstacles set forth by the Supreme Court in *Alice*.⁴² In *McRO*, the Federal Circuit held that a "method for automatically animating lip synchronization and facial expression of three-dimensional characters" was not an abstract idea because the "automation goes beyond merely organizing [existing] information into a new form or carrying out a fundamental economic practice."⁴³ In particular, the claims regarding the software patent at issue were directed to "a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type."⁴⁴ The Federal Court reasoned that this was not an abstract idea because the process "use[d] a combined order of specific rules that renders information into a specific format that is then used and applied to create the desired result."⁴⁵ The specific rules and implementation of this process were beyond what "any animator engaged in the search for an automation process would likely have utilized," and therefore constituted patentable subject matter.⁴⁶

The Federal Circuit further supported the patentability of software in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.* There, the Federal Circuit held that the software patent at issue was patentable subject matter because the claims were "'directed to' a particular process that improve[d] upon the manner in which systems collect[ed] and process[ed] network usage information, and the claimed process [was] limited in a specific way."⁴⁷ Together, *McRO* and *Amdocs* clarified the uncertainty resulting from the prohibition of patents on abstract ideas set forth by the Supreme Court in *Alice* and made clear that software can, in fact, be patented.

The United States Patent and Trademark Office (USPTO) provided further guidance on these recent software patent cases in its 2019 *Revised Patent Subject Matter Eligibility Guidance*. There, the USPTO further clarified

that software can be patentable subject matter if it has been “integrated into a practical application.”⁴⁸ This notice by the USPTO serves as a guide to patent examiners when evaluating whether an invention merits a patent because it details the specific circumstances in which software satisfies the patentable subject matter requirement. Additionally, this notice allows patent attorneys to make better informed legal decisions on behalf of their clients.

Taken together, *McRO*, *Amdocs*, and the 2019 Revised *Patent Subject Matter Eligibility Guidance* clarified the types of software that are patentable. In so doing, they alleviated some of the uncertainty surrounding the eligibility of software for patent protection. In turn, this benefits the Artificial Intelligence field by allowing industries that rely on Artificial Intelligence software to make informed investment decisions by accurately evaluating the benefits associated with pursuing patent protection, determining the financial value of its current software patent portfolio, and conducting more precise cost-benefit analyses before licensing additional Artificial Intelligence software patents.

Not So Obviousness

A common defense to patent infringement is for the infringer to argue the invalidity of the plaintiff’s patent.⁴⁹ The infringer may prove that the patent does not satisfy the non-obviousness requirement, thus invalidating the patent. One way to do this is to show that the patented technology at issue is an obvious variation of the prior art, which is technology in the public domain.⁵⁰ The non-obviousness standard is articulated in 35 U.S.C. § 103, which states that a patent may not be obtained “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art.”⁵¹

Historically, the Federal Circuit has adopted the “Teaching, Suggestion, Motivation Test” to determine if the combination of prior art renders the patent obvious.⁵² Under the Teaching, Suggestion, Motivation Test, the patent is non-obvious if the invention did not have a teaching present in the prior art that suggested that the variables could be combined to produce the invention at issue.⁵³ This straightforward test provided inventors and patent prosecutors with a framework to assess the seemingly vague non-obviousness requirement.⁵⁴ Further, the Federal Circuit adopted the Teaching, Suggestion, Motivation Test as a well-articulated and unambiguous rule to combat hindsight bias.⁵⁵ Hindsight bias is the idea that every invention at its core is a combination of obvious variations of various past inventions.⁵⁶

However, *KSR v. Teleflex* profoundly changed the way courts determined the obviousness standard. Upon review, the Supreme Court clearly stated that the Teach-

ing, Suggestion, Motivation Test was not the sole test for non-obviousness, but did not reject the test itself. This suggests that the Teaching, Suggestion, Motivation Test is still a consideration but is not a dispositive indication of non-obviousness.⁵⁷ In addition, *KSR* allowed for the application of judicial common sense, the subjective interpretation of non-obviousness by a judge.⁵⁸

Following the Supreme Court’s *KSR* ruling in 2007, there has been an increased number of obviousness rejections by both the District Courts and the Federal Circuit.⁵⁹ The number of obviousness rejections in the District Courts increased from 6.3% pre-*KSR* to 40.8% post-*KSR*.⁶⁰ Similarly, the number of obviousness rejections in the Federal Circuit increased from 40% pre-*KSR* to 57.4% post-*KSR*.⁶¹ The significant increase in the number of patents being invalidated as non-obvious is largely attributable to the new obviousness analysis set forth in *KSR*.⁶²

The Impact of *KSR*

Analyzing the outcome of *KSR* allows for an evaluation of both the positive and negative aspects of the specialized Federal Circuit. *KSR* increased the number of patents rejected as obvious by allowing judicial common sense to factor into non-obviousness analysis.⁶³ The problem with obvious patents is that with every issuance of a utility patent comes the right to exclude the public from making or using the patented invention for 20 years from the date of filing the patent application.⁶⁴

The patent system is based on a trade-off between the inventor and the public: the public benefits from the disclosure of the patented technology and is informed on how to make and use a novel invention while, in exchange, the inventor gets the right to prevent the public from making or using the invention without a license.⁶⁵ This disclosure serves an important function in that it enables the public to learn from the invention and improve upon it.⁶⁶ However, by definition, an obvious patent has no public innovation value because it is simply a combination of what is already in the public domain.⁶⁷ Thus, granting an obvious patent skews the patent trade-off by preventing the public from using the patented technology without any public disclosure benefits, and forces those who want to use the invention to pay the licensing fee.

As it pertains to software patents, the post-*KSR* high threshold of non-obviousness has been satisfied by truly innovative inventions. For example, in *Intellectual Ventures I LLC v. Motorola Mobility LLC*, both the District Court and the Federal Circuit found the software patent at issue to be non-obvious, even in light of judicial common sense.⁶⁸ *Intellectual Ventures I LLC* and other post-*KSR* cases establish the higher standard of non-obviousness, but simultaneously permit the use of judicial common sense to evaluate the invention holistically. This arguably makes software patents even more valuable, as licensees of the

software patent have more certainty in the non-obvious quality of the patent to be licensed.

Artificial Intelligence industries, in particular, rely heavily on software development that involves substantial investments in a single product. By increasing the non-obviousness threshold, Artificial Intelligence companies can be assured that their licensed software patent is truly innovative and that others will not “freeride” off the company’s heavily invested innovation or create an obvious variety of the invention that would decrease the value of the licensed software. Additionally, Artificial Intelligence companies can be certain before investing heavily in the development and patent prosecution process that their software is not simply an obvious variety of their competitors’.

In sum, *KSR*’s heightened standard of non-obviousness increases the quality of software patents. In turn, this incentivizes software innovation and, therefore, benefits the field of Artificial Intelligence by providing more meaningful software licenses. In this way, *KSR* exemplifies how the system of checks and balances involving the Supreme Court’s adjusting the non-obviousness standard applied by the Federal Circuit has positively impacted industries that depend on Artificial Intelligence.

Patent Infringement: Claim Construction

The first step of patent infringement is to determine the metes and bounds of the patent rights. This is done through a process called claim construction, which interprets the meaning of particular terms within a patent.⁶⁹ After the patent claims are construed, they are compared to the allegedly infringing product to determine if this alleged infringing product falls within the claims of the patent.⁷⁰ If the allegedly infringing product falls within the claims of the patent at issue, then there is infringement.⁷¹

In determining whether patent infringement is best suited for a specialized or generalized court, it is essential to distinguish the role of the judge in patent law from the role of the judge in other areas of law. In most areas of law, the judge addresses questions of law, while questions of fact are reserved for the jury.⁷² However, in patent law, claim construction is a mongrel practice of both law and fact, which is left for the judge alone.⁷³ Thus, patent law is distinguishable in that the role of the judge extends beyond mere questions of law. The issue facing patent practitioners and inventors alike is whether it is preferable for the judge to have control over both the legal and factual issues in the case, or whether the traditional division of labor between the judge and jury is more beneficial.

The Seventh Amendment

The Seventh Amendment states “[i]n suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in

any court of the United States, than according to the rules of the common law.”⁷⁴ The Seventh Amendment makes it clear that the jury, not the judge, should make factual determinations.⁷⁵ Thus, the District Court judge’s determinations of both law and fact during claim construction appears to contradict the Seventh Amendment requirement.

The Supreme Court addressed this concern in *Markman v. Westview Instruments, Inc.* There, the Court stated that the Seventh Amendment was not violated when the judge decided the factual and legal issues during claim construction without a jury.⁷⁶ This is because patents did not include any claims at the time of the Seventh Amendment’s ratification, and therefore there were no claims to be construed by the jury.⁷⁷ Thus, the Seventh Amendment is not violated when the judges alone interpret claims during claim construction.⁷⁸

The Impact of District Court Judges Interpreting Patent Claims

The Seventh Amendment was created as a right to prevent government overreach and to allow for more democratic authority.⁷⁹ The right to trial by jury is one such check on government overreach.⁸⁰ Although there is an essential interest in having jurors, the vast complexity of the technology suggests that perhaps a jury of one’s peers might not be well-suited for claim construction.⁸¹ Additionally, patents are interpreted through the lens of a person of ordinary skill in the art, rather than the objective reasonable person.⁸² One reason that the jury system might not be well-suited for claim construction is that patents are difficult to understand because of their complex, novel, and technical nature.⁸³

Another manner in which patent law differs from other areas of law is the way that evidence is received and interpreted during claim construction.⁸⁴ In *Phillips v. AWH Corp.*, the court stated that intrinsic evidence is more significant than extrinsic evidence in interpreting patent claims.⁸⁵ Intrinsic evidence is the patent specification, claims, and prosecution history.⁸⁶ Extrinsic evidence is anything not within the patent and its prosecution history, such as dictionaries, treatises, and expert testimony.⁸⁷

Further, patent claims must be interpreted at the time of filing.⁸⁸ Intrinsic evidence is weighed more heavily because it is less biased than extrinsic evidence, as is part of the patent application itself.⁸⁹ Extrinsic evidence may be more biased and thus less valuable. For example, expert testimony may be biased as experts are hired by each specific party to prove a biased interpretation of the patent claim.⁹⁰ It is easy to see how the jury system may not be well-suited for claim construction as 1) there are nuances among various technology types; 2) the paid expert witnesses testifying on opposite sides may argue for different definitions of the same technical terms; and 3) the discussion of patent prosecution history will likely involve both

highly technical legal and scientific terms that are meant for a person of ordinary skill in the art, not for an objective reasonable jury member.

For the aforementioned reasons, while claim construction requires the interpretation of factual questions, the District Court judges are better equipped than the jury to perform this task.⁹¹ The judges' ability to interpret these complex factors outweighs the jury's credibility because of the societal interest in uniformity.⁹² The unique role of a District Court judge makes the standard of review on appeal an essential way in which the Federal Circuit is able to provide its expertise to ensure fair treatment by the District Court.

Claim Construction on Appeal

Claim construction is a mongrel practice of both law and fact.⁹³ Questions of law during claim construction are reviewed de novo on appeal, meaning that no deference is granted to the District Court's findings.⁹⁴ This gives the Federal Circuit more influence in deciding legal questions regarding claim constructions.

Prior to *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, the Federal Circuit's reversal rate of the District Court's claim construction was 40%.⁹⁵ This led to a very high probability that litigation would be appealed from the District Court, which directly impacted litigation costs.⁹⁶

Additionally, claim construction often determines the outcome of patent litigation.⁹⁷ As a result, these reversals ensuing at late stages in the litigation process lead to increased uncertainty surrounding patent rights.⁹⁸ If claim construction results in a finding that the scope of the patent rights did not include the infringing device, then this would result in a verdict of noninfringement.⁹⁹ The negative result is that patent owners and technology companies become uncertain about their ability to make well-informed investment decisions regarding their patent rights.¹⁰⁰

In response to the effects of the high reversal rate, the Supreme Court decided in *Teva Pharm. USA, Inc. v. Sandoz, Inc.* that the fact-finding in claim construction must be reviewed for "clear error," as set forth by Federal Rule of Civil Procedure 52(a). This is a higher standard of review, resulting in a lower likelihood of reversal.¹⁰¹ *Teva* was significant as it was a step toward harmonizing aspects of patent law during claim construction with other types of law on appeal that must adhere to the Federal Rules of Civil Procedure.¹⁰² Additionally, the clear error standard of review gives more deference to the District Court in claim construction when relying on extrinsic evidence.¹⁰³ This gives greater weight to the fact-finding interpretation of the judge and makes these factual interpretations more difficult to appeal.

By changing the standard of review on appeal in *Teva*, the Supreme Court mitigated the power of the Federal

Circuit to review the District Court's findings. *Teva's* impact on the system of checks and balances directly influences researchers' incentives to invent by impacting the societal view of obtaining software patent rights, which can thereby increase the rewards of the patent system, resulting in increased industry investment in expensive software development.^{104, 105} The patent system benefits the field of Artificial Intelligence by incentivizing the increased discovery and disclosure of novel inventions, which decreases the time it takes for inventions to become commercially available.^{106, 107, 108}

Further, the patent system is driven by the incentive to invent as supported by the Dominant Economic Theory. Under this theory, the profits derived from patenting inventions induce inventors to vigorously pursue patentable inventions, resulting in an increased number of inventions reaching the public more quickly.¹⁰⁹ The speed at which novel inventions become commercially available is directly proportional to the Artificial Intelligence industry's ability to provide high quality and innovative software by the use of Machine Learning and Deep Learning software patents.¹¹⁰ Therefore, the patent system is essentially becoming the driving force governing the stimulation of novel software inventions in the Artificial Intelligence field.^{111,112}

The Quasi-Judicial Jury

By virtue of the increase in the standard of review on appeal to "clear error" in *Teva*, the District Court's role in the interpretation of claims during claim construction has arguably become that of a "quasi-judicial jury."¹¹³ This is similar to the traditional jury system because the generalist knowledge of the District Court judge is analogous to the generalist knowledge of the jury. In contrast to the generalist knowledge possessed by the District Court judge, the Federal Circuit has a more specialized knowledge of the law. The relationship between the District Court and the Federal Circuit is similarly analogous to traditional jury systems where the judge must review the jury's decision for clear error, as the jury is made up of one's peers and does not necessarily have expertise in the matter at issue. Although the District Court is an expert generalist in many different fields, it is less specialized in patent law compared to the Federal Circuit, and thus the District Court acts as a "quasi-judicial jury." This "quasi-judicial jury" prevents the Federal Circuit from interpreting patent law in a way that would stray too far from other legal fields.

The impact of this heightened standard of review for factual questions is that the Federal Circuit is unable to make changes to the facts of claim construction unless there is a "clear error." Arguably this leads to an increase in certainty at the cost of accuracy.^{114, 115} This increase in certainty reflects the loss of the experience of the more specialized Federal Circuit judges in interpreting the claims.¹¹⁶ However, this increased level of certainty is due

to the decreased reversal rate on appeal. This results in less detrimental reliance by both parties as they refer to the results of the claim construction.¹¹⁷

When determining the impact of the Federal Circuit's influence over the generalist District Court, it is important to compare the institutional competencies of the District Court and the Federal Circuit. While the District Court is closer to the facts, as it is the body that develops the record, the Federal Circuit has the benefit of experience in claim construction and has the specialized knowledge for interpreting patent cases accurately.

Arguably, the District Court is able to provide a clear and better-rounded interpretation of the patent claim as it applies to society because the District Court is well-versed in a variety of laws. The District Court is better equipped to understand the real-world impact of technology as it applies to the other fields of law, such as contract disputes, property rights, and privacy law.

In sum, claim construction exemplifies a procedural difference between patent law and other laws that rely on the Federal Rules of Civil Procedure by not requiring a jury for factual questions. Additionally, this interpretation of claim construction brings to light the trend of balancing the specialized experience of the Federal Circuit against the generalist expertise of the District Court in interpreting patent law claims in a similar fashion as that used in other legal fields.

Conclusion

The specialization of the patent law system, in having both generalized and specialized courts review the cases, allows for a holistic balance of specialized and generalized legal knowledge. The generalist District Court remains close to the facts of the case as it develops the record, which allows for the broad application of law and makes for a clear understanding of how the legal issues present themselves in the case without oversaturating it with the technical issues that often dilute the merits of a patent law case.

The Supreme Court has fashioned an additional balance to ensure that the strict and accurate interpretation of the law is Constitutional and relates back to the societal purpose of patents, "to promote the progress of science and useful arts."¹¹⁸ Furthermore, as there cannot be sufficient progress in the field of patent law by relying simply on expert knowledge, the generalist district court has been granted this power by the high court to assist in that progress through its ability to see the impact of particular cases not only on the patents at issue but also on society as a whole. The Supreme Court has thus allowed judges who have gained experience and understanding from various legal fields to play a vital role in the development of patent law.

On the other hand, the Federal Circuit has specialized knowledge and can provide a stricter interpretation of the

law as it applies to technology when needed. Its expertise allows the Federal Circuit to determine when the generalized court has gone too far beyond mere creativity and has misinterpreted the patents. The Federal Circuit provides predictability and accuracy in overseeing the lower courts.

In sum, there is a balance between generalization and specialization as a patent is interpreted by the generalist District Court, appealed to the specialized Federal Circuit, and finally holistically reviewed by the generalist Supreme Court. This system of checks and balances allows for comprehensive understanding of technical details that is balanced against the general application of law and societal impact.

Although there are times when the generalized and specialized courts have independently interpreted patent law in a way that had detrimental effects on the public, as a whole the balanced system allows for different levels of expertise at various stages of litigation. It is clear that the patent review system protects against both overly generalized and overly specialized points of view.

Thus, the Supreme Court's decisions in *KSR* and *Teva*, and the Federal Circuit's holdings in *McRO* and *Amdocs*, shed light on the positive impacts of the varying levels of specialization within the patent appellate framework of Article Three courts, and on how this framework supports the industries that rely on Artificial Intelligence in making more informed business decisions, incentivizing innovation, and developing high-quality Artificial Intelligence. The checks and balances provided by the courts in a patent suit pathway thus promote efficiency in the improvement of technology in the Information Age.

Endnotes

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