

# Possible Limit on the Use of “Common Sense” to Invalidate a Patent Claim for Obviousness Based on a Single Reference.

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The law regarding obviousness, like a pendulum, has swung over time between favorable to unfavorable positions depending upon one’s perspective. In 1952, the requirement that an invention be “nonobvious” was codified in Section 103 of the Patent Act. In 1966, the Supreme Court issued its seminal decision in *Graham v. John Deere* 383 U.S. 1 (1966) establishing a four factor test for obviousness.<sup>1</sup>

After the *Graham* decision and before the establishment of the Federal Circuit, the lower courts struggled in applying Section 103 even under the *Graham* test. It

became perhaps too easy in some circuits but more difficult in others for defendants to prove invalidity under Section 103. The Federal Circuit was created at least in part to add consistency to the application of Section 103 and *Graham*.

The Federal Circuit developed what is referred to as the Teaching-Suggestion-Motivation (“TSM”) test to address the *Graham* court’s warning against hindsight bias. As it evolved, TSM rose in stature. Some panels seemingly raised the TSM test to a fifth factor on par with the *Graham* factors. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727, 1738 (2007) (“the court was required to also apply the TSM test”). By 2007, obviousness had become a difficult defense to prove, and obviousness rejections by examiners were fairly easy to overcome by attacking the examiner’s failure to demonstrate a motivation to combine. The pendulum had perhaps swung too far in favor of patentholders as it became much harder to invalidate a patent for obviousness.

The Supreme Court in 2007 again addressed obviousness in

*KSR. Id.* Immediately after the *KSR* decision, many practitioners feared that *KSR* had moved the pendulum too far in the other direction in favor of defendants by its introduction of “common sense” as a rationale for the conclusion of obviousness.

*KSR* reaffirmed *Graham*’s four factors as the test for obviousness, rejecting the formalistic approach of the *KSR* Federal Circuit panel, and relegating TSM to just another factor or tool that may supply “helpful insight.” *KSR* at 1741. However, beyond criticizing the TSM test, the Supreme Court in *KSR* failed to establish a clear path for an obviousness analysis beyond requiring that the facts relied upon must be disclosed and that the reasons for finding obviousness articulated. It was perhaps the Supreme Court’s five references to “common sense” that caused the most consternation in the patent community. Many practitioners worried that *KSR*’s references to “common sense” would make it too easy to invalidate patents, and, therefore, constituted a weakening of the patent system. These fears were not unfounded as history shows.<sup>2</sup> However, the pendulum as to the use of “common

<sup>1</sup> The four factors, which have become known as the “Graham factors,” are as follows: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) any secondary considerations that may be applicable; and (4) against this backdrop, the obviousness or nonobviousness of the subject matter. See *Graham*, 383 U.S. at 17 - 18.

<sup>2</sup> One statistical analysis has found that a court’s willingness to invalidate based on obviousness varied between the



sense” appears to have recently reached an apex if several recent Federal Circuit decisions are any indication.

TSM was mostly developed in the context of a combination of multiple references. In contrast, *KSR* concerned a relatively simple device, the accelerator pedal in an automobile. Similarly, *Graham* involved patents for relatively simple technologies (a plow and a finger-operated sprayer). The Court invalidated the claims in each case based on a single reference combined with the knowledge of one skilled in the art. In *Graham*, the limitations not present in a single reference were relatively minor (“mere shifting of wear point” in one patent and substitution of a rib built into the collar in another). It is the single-reference case where reliance on “common sense” is most likely to run afoul of the *Graham* court’s warning against hindsight bias. The obviousness analysis for a single, non-anticipatory item of prior art after *KSR* deserved some additional development by the Federal Circuit.

The Federal Circuit in two relatively recent cases has provided additional guidance as to the use of “common sense” in the single reference scenario by reversing the PTAB’s findings of obviousness based on “common sense.” See *Arendi v. Apple, Inc.*, 832 F. 3d 1355 (Fed. Cir. 2016); *DSS Tech. Mgmt. v. Apple Inc.*, 885 F. 3d 1367 (Fed. Cir. 2018). The *Arendi* opinion contains an extensive discussion of *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F. 3d 1324 (Fed. Cir. 2009). A comparison of *Perfect Web* and *Arendi* provide a limit – minor or “peripheral” limitations versus major limitations that go to the “heart of the invention” (832 F. 3d at 1363) – that may prevent the abuse of “common sense” to justify a finding of obviousness.

In *Perfect Web*, the Federal Circuit discussed *KSR*’s “common sense” and “obvious to try” factors at length. *Perfect Web*, 587 F. 3d at 1333. The Federal Circuit upheld the lower court’s finding of obviousness where common sense had been used to supply a missing limitation. The court in *Perfect Web* upheld the district court’s granting of summary judgment of obviousness. *Id.*

After first noting that *Perfect Web* was the only case cited where “common sense” was used to supply a missing limitation, the court in *Arendi* distinguished the missing limitation (D) in *Perfect Web* as nothing more than an instruction to repeat the first three steps (A-C) found in the prior art. *Arendi*, 832 F. 3d at 1362. The court then noted that, “in contrast, the missing search

[i.e., the missing limitation in *Arendi*] ‘plays **a major role** in the subject matter claimed.’” *Id.* The court concluded:

[W]hile ‘common sense’ can be invoked, even potentially to supply a limitation missing from the prior art, it must still be supported by evidence and reasoned explanation. In cases **where ‘common sense’ is used to supply a missing limitation**, as distinct from a motivation to combine, moreover, our search for a reasoned basis for resort to common senses **must be searching**. And, **this is particularly true where the missing limitation goes to the heart of the invention.**”

*Id.* at 1363 (emphasis added).

Initial signs that *Arendi*’s “major limitation” test would serve as a limit on “common sense” were encouraging. In *DSS Technology Management*, the Federal Circuit reversed the PTAB’s ruling of obviousness where a conclusory allegation of “common sense” was relied upon to supply the missing limitation, stating:

The sole issue on appeal is the Board’s finding that it would have been obvious to modify the base station transmitter in Natarajan to be “energized in low duty cycle RF bursts,” as required by the claims of the ’290 Patent. *Apple I*, 2016 WL 3382361, at \*15.2 We hold that the Board’s final written decisions fail to provide sufficient explanation for its obviousness finding.

As we observed in *Arendi*, “common sense and common knowledge have their proper place in the obviousness inquiry,” at least “if explained with sufficient reasoning.” 832 F.3d at 1361 (quoting *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328 (Fed. Cir. 2009)). “But,” we cautioned, “there are at least three caveats to note in applying ‘common sense’ in an obviousness analysis.” *Id.* “First, common sense is typically invoked to provide a known motivation to combine, not to supply a missing claim limitation.” *Id.* at 1361–62 [citations omitted] Second, we have invoked common

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*district courts.* Ryan T. Holte and Ted Sickelman, *Cycles of Obviousness*, 105 Iowa Law Rev. 107 (November 2019) (finding that in absolute terms the Federal Circuit has been about ten percent less likely to find obviousness). Those that have analyzed the Federal Circuit have reached different conclusions. One concluded that the Federal Circuit was less likely to find obviousness, whereas another noted that the Federal Circuit was affirming obviousness rulings by the district courts more often. *Id.*; Jason Rantanen, *The Federal Circuit’s New Obviousness Jurisprudence: an Empirical Study*, 16 Stan. Tech. L. Rev. P709, (Spring 2013). Aside from what has been happening in the district courts and Federal Circuit post-*KSR*, immediately following the advent of IPRs, the PTAB frequently relied on “common sense” without a further discussion of the evidence to conclude that claims were obvious.



sense to fill in a missing limitation only when “the limitation in question was unusually simple and the technology particularly straightforward.” *Id.* at 1362 (citing *Perfect Web*, 587 F.3d at 1326). “Third, our cases repeatedly warn that references to ‘common sense’—whether to supply a motivation to combine or a missing limitation—cannot be used as a wholesale substitute for reasoned analysis and evidentiary support, especially when dealing with a limitation missing from the prior art references specified.” *Id.*

The Board’s invocation of “ordinary creativity” is no different from the reference to “common sense” that we considered in *Arendi*. *See id.* at 1361 [parenthetical omitted]. Here, the Board relied on a gap-filler—“ordinary creativity” instead of “common sense”—to supply a missing claim limitation. *Id.* at 1361. “In cases in which ‘common sense’ is used to supply a missing limitation, as distinct from a motivation to combine, ... our search for a reasoned basis for resort to common sense must be searching.” *Id.* at 1363. The Board’s reliance on “ordinary creativity” calls for the same “searching” inquiry.

As in *Arendi*, the limitation at issue here is not “unusually simple,” and the technology is not “particularly straightforward.” *Id.* at 1362. ...

*DSS*, 885 F.3d at 1374

Again, *Graham* and *KSR* were single reference cases, and the limitations not disclosed in the single reference were relatively minor. *Arendi* and *DSS* represent a centrist view of *Graham* and *KSR* as applied to a single reference in a case involving more complex technologies.

If the courts and patent examiners would actually take the *Arendi* and *DSS* statements to heart, and avoid using “common sense” to supply a missing “major” limitation going to the “heart of the invention,” “common sense” would not be the great killer of patents as some practitioners feared immediately after *KSR*. Unfortunately, more recent decisions suggest that *Arendi*’s “major role” test is not being applied and has had little effect on PTAB behavior aside from forcing the PTAB to write longer justifications for its reliance on “common sense.” *Cf. Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1338 (Fed. Cir. 2020) (affirming PTAB decision wherein it relied on common sense to supply the missing limitation as to a single reference in a case involving simple technology); *see also B/E Aero., Inc. v. C&D Zodiac, Inc.*, 962 F.3d 1373, 1380-81 (Fed. Cir. 2020) (affirming PTAB’s finding of obviousness based on use of common sense to supply missing limitation in a combination of references in a case involving “simple” technology); *Game & Tech Co. v. Activision Blizzard Inc.*, 926 F.3d 1370 (Fed. Cir. 2019) (affirming PTAB’s decision of obviousness in view of a single reference as well as the reference in combination with others, but no discussion of common sense). Only time will tell whether *Arendi* and *DSS* established a limit on the reliance on “common sense” in the case of a single reference or stand as anomalies.

The practitioner may take away the following. For the patent prosecutor faced with a 103 rejection based on a single reference and the examiner’s assertion of common sense, consider submitting an inventor’s declaration under 37 C.F.R. §1.132 explaining that the missing limitation would not have been obvious, and cite to the *Arendi* and *DSS* cases cited above. At the very least, the inventor’s position will be stronger on appeal to the PTAB. For the practitioner resisting an IPR or litigator resisting summary judgment, emphasize that the technology is not simple and that the missing limitation is a major limitation. If the petitioner’s or movant’s evidence is merely conclusory, attack the petitioner’s evidence arguing that it is insufficient to support a “reasoned analysis.”