

The Obvious Advantage

by Eric T. Jones

Almost all inventions are combinations of existing technology. However, the patent laws of virtually every nation require that, to be considered patentable, such inventions must combine existing technology in such a way as to possess or make what's called an "inventive step" beyond what's gone before. Or, in the language of U.S. patent law, such combinations must be "nonobvious." 35 U.S.C. § 103. In the US Patent and Trademark Office (USPTO), when an examiner is reviewing a patent application and comes across a patent claim that describes what the examiner considers to be an obvious combination of existing technologies, the examiner is required to present a prima facie case supporting that finding. US patent examiners are quite uniform in their approach to doing this. Unfortunately, their approach is uniformly wrong. Extra time and money must therefore be invested to obtain patent protection in the US since patent attorneys must prepare and file multiple claim amendments and/or arguments to satisfy or circumvent US examiners' flawed approach. Also, patent owners must often settle for patent claims whose scope has been unduly narrowed and have therefore become easier for competitors to design-around. After explaining the problem in detail, I'll recommend a way for US patent attorneys to successfully deal with improper obviousness rejections and, at the same time, to encourage the US examining corps to re-think their approach to evaluating obviousness.



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The flawed approach that US examiners have been using is what could be described as a "shared advantage" approach to establishing a prima facie case for obviousness. When they reject a claim as being obvious based on a combination of existing technologies, US examiners consistently support the rejection by arguing that the combination would provide the same advantage as the claimed invention. They generally express this argument in written form by completing a statement along the following lines: "It would have been obvious to one of ordinary skill in the art at the time of the invention to [insert description of the combination] to [describe an advantage the combination would provide]". I've seen this verbal template used to variously establish that it would have been obvious to combine known liquid dispenser features "to controllably supply a uniform amount of liquid," to combine known humidifier features and air flow control technology "to control air flow to and from the humidifier," to combine known computer software technologies "because it would have enabled installing software automatically," to combine known communications technologies "because it insures communications are secure and uncorrupted," and to combine known dental implant technologies "to better hold the implant during installation."

US examiners are probably using this shared advantage approach because they know that, to present a prima facie case for obviousness based on a combination of existing technologies under 35 U.S.C. § 103, and according to precedent established by the Court of Appeals for the

Federal Circuit (Fed. Cir. or "CAFC"), they must show why a skilled person, when confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select elements from the cited existing technologies for combination in the manner claimed. See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). Examiners also know that, to help reduce the likelihood of improper hindsight analyses in these situations, the courts require them to support such a finding of obviousness with evidence of a suggestion or motivation to combine the references that create the case for obviousness. See, e.g., *In re Rouffet* at 1457-1458. That evidence may come in the form of an express teaching or suggestion in the prior art (pre-existing technology) or in knowledge generally available to one of ordinary skill in the art. See, e.g., *In re Oetiker*, 24 USPQ2d 1443, 1446-1447 (Fed. Cir. 1992). Although examiners appear to be using the shared advantage approach in a sincere attempt to fulfill this requirement to show motivation, it causes them to bypass an essential portion of the proper analysis.

In the *Rouffet* case, the CAFC reversed the Board of Patent Appeals and Interferences for a similar failure to properly adhere to the proper analysis, i.e., for upholding an obviousness determination without relying on any of the permissible motivation sources described above. The Board relied, instead, on a high level of skill in the art as evidence of motivation to combine. Like the Board in the *Rouffet* case, examiners often fail to confine their analyses to permissible motivation sources. Instead, they rely on recitations of advantages that combinations of references would realize, i.e., the ability to provide the same benefit as the claimed invention. However, while the level of skill in the art is at least part of the judicially defined inquiry for a suggestion to combine, the ability to identify or think up a shared advantage is not.

But as many examiners see it, and as they and their supervisors have stated to me on several occasions, a shared advantage IS a motivation! After all, if there's an advantage to combining the features of different existing technologies to arrive at the invention, wouldn't that motivate one of ordinary skill in the art to do so? The answer is no - or, at least, "not necessarily." If the prior art actually teaches or suggests that the advantage would be realized by combining features, then perhaps the answer is yes - the teaching or suggestion might then have motivated one of ordinary skill in the art to combine the features. But what if there's no teaching or suggestion of this advantage; that is, what if the prior art provides no "explicit motivation"?

To support combining existing technologies where there is no explicit motivation or express teaching to do so, the Court of Appeals for the Federal Circuit (the CAFC) has established the "problem to be solved" approach. According to the CAFC, when there's no express teaching, examiners can look for evidence of motivation in "the nature of the problem to be solved, leading inventors to look to existing technologies relating to possible solutions to that problem." *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.* 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); See also, e.g., *In re Rinehart*, 189 USPQ 143, 149 (CCPA 1976); *In re Rouffet* at 1458; *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.* 37 USPQ2d 1237, 1240 (Fed. Cir. 1995) (the prior art teaching must solve the same problem as the applicant sought to solve through the invention); *In re Oetiker* at 1446-1447. In other words, even if an examiner is unable to find evidence of motivation in an express teaching or suggestion in the prior art or knowledge generally available to one of ordinary skill in the art (as is typically the case), the examiner can still show that there was an implicit motivation to combine the existing technologies. The examiner can show an implicit motivation by producing evidence that one skilled in the art, confronted with the same problem as the inventor, would

know to use a prior art teaching to solve that problem, i.e., the problem that the applicant sought to solve through the invention in question. *Id.* For this to be true the problem that the invention solves must be the same as or at least similar to the problem that the prior art teaching solves. In *re Rinehart* at 149; *Para-Ordinance* at 1240; *Motorola, Inc. v. Interdigital Technology Corp.*, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997) ("the record evidence supports the jury's implicit finding of a suggestion to combine the various references . . . [which] were related and involved similar problems and issues."); In *re Zurko*, 59 USPQ2d 1693 (Fed. Cir. 2001) ("to say that the missing step comes from the nature of the problem to be solved begs the question because the Board has failed to show that this problem had been previously identified anywhere in the prior art."). This "problem to be solved" approach is not unlike the "problem-and-solution" approach used by the European Patent Office. *Guidelines for Examination in the European Patent Office*, C-IV- 9.8 (2005).

Not only is it legally insufficient to simply identify a benefit or advantage that the suggested combination would share with the claimed invention, it amounts to logical error as well. Whenever there are existing technologies that, when combined, are the same as a claimed invention, then that combination will always and necessarily provide the same advantages as the invention! How could it be otherwise? So, to conclude that an invention is obvious just because a combination of existing technologies that "arrives at" the invention also provides the same advantages as that invention, is akin to saying the invention is obvious because it provides the same advantages as itself! Such reasoning short-circuits the proper obviousness analysis and can be used to characterize any inventive combination as being obvious. Because this reasoning can be applied to almost all inventions, an advantage that an invention shares with an examiner's combination of existing technologies is incapable of distinguishing between obvious and non-obvious inventions.

Because the "shared advantage" approach is incapable of distinguishing between obvious and non-obvious inventions, it can mislead or allow an examiner into rejecting patent claims based on the examiner's subjective feeling or sense that an invention is obvious rather than on objective evidence of a teaching or suggestion in the prior art or general knowledge. To more objectively distinguish between obvious and non-obvious combinations, examiners should instead determine whether there is any evidence of a teaching or suggestion that would have motivated one skilled in the art to combine existing technologies to enable one to realize the advantage. This is where the "problem to be solved" test comes in. In short, the "problem to be solved" approach is to look to the nature of the problem to be solved whenever the prior art provides no explicit motivation to combine existing technologies. If the problem that the inventor solved by including a feature in his invention is different from the problem that the prior art solved through the use of the same feature, then there's no reason to expect that one of ordinary skill in the art would associate the prior art feature with the solution to the inventor's problem.

The use of the shared advantage approach has reached a level of acceptance in the USPTO examining corps that may require more than a polite suggestion to overcome. When asked to apply the "problem to be solved" test, some US examiners will respond that they have fulfilled the requirement to identify a "problem to be solved" simply by identifying an advantage. They will explain that the shared advantage they've described should be viewed as just another way to identify the problem to be solved, i.e., the advantage realized by the combination should be

viewed as the solution to the problem. However, if we are to accept the identification of any advantage as identifying a "problem to be solved," then, taking that argument to its logical extreme, advantages such as "how to save money" or "how to make more money" or "how to make a better invention" should also be accepted as problems to be solved since they provide an acceptable source of motivation in the form of "economic optimization."

This could not have been the Federal Circuit's intent when it established the "problem to be solved" test. If any shared advantage could serve as motivation, as explained above, it would prevent nearly all inventions from being patented since virtually all inventions comprise pre-existing technology combined in a novel way to provide economic benefit to the inventor or the patent owner. When the examiner finds identity (or at least similarity) between the specific problem solved by the inventor and a problem previously solved by an inventor of existing technology, then the examiner may be able to fairly conclude that the invention is obvious, or, in other words, that the pertinent motivation is a motivation to make obvious the technologic advance - not the omnipresent motivation to achieve a competitive advantage or achieve economic benefit.

Before launching into an attack on a US examiner's shared advantage reasoning, though, it would be wise to apply the "problem to be solved" test to determine, in advance, whether the fight will be worthwhile. Also, you or your US patent attorneys haven't been challenging obviousness rejections based on this faulty "shared advantage" reasoning, please consider doing so. If enough of us do it, and if enough of us appeal decisions based upon it, (and if the U.S. Supreme Court's pending review of *KSR v. Teleflex* doesn't result in a contrary holding) we will eventually succeed in persuading the USPTO examining corps to jettison the "shared advantage" approach in favor of the "problem to be solved" analysis - reducing prosecution time, obtaining the claim scope you're entitled to, and reducing patent prosecution costs.

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