

## *A Promising Field of Endeavor: A Grounded Approach to Patentability*

**Amy L. Landers**

Generally, patent law views the creation of new solutions as an event that requires an inspired human act as its touchstone. In contrast, non-inventive activity is phrased as a series of mechanical steps. The analysis includes a handful of characteristics, such as motivation, reasons to combine, and the exercise of judgment that certain options are obvious to try. These are flexible determinations examined within the context of the relevant art that become critical normative judgments about the nature of invention. The explanatory language rests on the hypothetical thought processes of a hypothetical person, using the language and logic of the mind. The most pervasive and explicit policy of the nonobviousness jurisprudence is that patents should not be granted for advances that “would occur in the ordinary course.”<sup>1</sup> This judgment to be made with reference to the level of intellectual risk, based on an understanding of the prior art references and the knowledge of the hypothetical person of ordinary skill in the art.

It is difficult to understand how this standard can be implemented without considering what scientists and engineers actually do. The current law of nonobviousness bears the mark of the mechanical age in which it was developed. Although undoubtedly sufficient for the types of inventive activity in an age of mechanical invention, the current standard does not appear to have grappled with the manner in which scientific discovery occurs in our current technological landscape. This is demonstrated in opinions that evidence interesting anomalies in the manner in which various scientific methods are treated, such as the treatment of scientific constraints, routine testing and framing market demand.

Part of the issue arises from the evidentiary standards used to determine nonobviousness. Said another way, a claim will more likely be deemed inventive when there is a significant intellectual gap between the prior art references and the claim at issue. It is far less likely that a claim will be found patentable where the person of ordinary skill can recreate the solution to a pre-existing problem with a logical series of informational stepping-stones. This line of reasoning has become a rule of thumb for whether a claim is obvious. The information used to make this assessment is typically made by examining references which qualify as prior art under section 102. Yet as a group, scientists are subject to real world influences which far exceed that which clears the evidentiary hurdle for consideration as a reference. Further, fact finders may engage in the human tendency to consider that breakthrough scientific advance occurs through the intervention of inspiration, genius or otherwise inexplicable phenomena. Thus, the fact finder might erroneously assume that an information gap has been traversed by an inventive genius, when in fact a gap exists merely because there is a lack of an

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<sup>1</sup> KSR Intern. Co. v. Teleflex Inc., 550 U.S. 398 (2007).

available reference. This work proposes that the nonobviousness analysis be based on a broader range of information than that currently used.

Second, the law should begin to confront how the nonobviousness standard interacts with current scientific methods. These include the role of routine testing, framing the question of market demand and scientific constraints. Use of the terms “motivation,” “obvious to try” or “predictable” are sufficiently malleable for the case-by-case inquiry. Currently, these case-determinative findings may be based on larger principles of ensuring incentives, ensuring limits on patentability, and economic policy. However, explicit discussions of *any* of these considerations are rare. This work considers how the policy considerations that underlie patentability determinations can inform the manner in which scientific methods are treated in nonobviousness law.