

Problem Finding And The Structure Of Creativity In Intellectual Property Law

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Some principles in law are so foundational as to become axiomatic. In intellectual property law, the notion that ideas lie outside the domain of patent and copyright protection is widely accepted as one such principle. In both patent and copyright, the line between unprotected ideas and their protectable implementations—whether expressions or applications—structures the boundaries of intellectual property entitlements. But these boundaries do more than delineate the scope of patent or copyright protection. They reflect and reinforce an implicit model of creativity—one that privileges problem-solving over problem-finding and problem-framing. In this paper, I interrogate the assumptions embedded in that model.

Intellectual property law rests on an implicit model of innovation as problem-solving. Patent law, for instance, rewards those who identify solutions to technical problems, often discounting the role of problem framing in charting the path to those solutions. Copyright law insists that authors are those who craft original expressions from preexisting ideas but minimizes the contributions of those who find and frame an idea worth expressing.

What both frameworks neglect is the foundational insight—drawn from decades of psychological and cognitive research on creativity—that problem finding and problem framing are often the most generative, complex, and cognitively demanding phases of the creative process. In privileging solutions over problems, these implicit frameworks give us a narrow and potentially impoverished legal conception of creativity.

I begin by analyzing how patent law's doctrines—particularly non-obviousness, analogous arts, and inventorship—privilege solution-centric innovation and render invisible those contributors who identify or reframe a problem in ways that enable a solution. For example, the doctrine of analogous art asks whether prior art is “reasonably pertinent to the particular problem the inventor is trying to solve”—an inquiry that takes the problem as pre-framed. Yet, evidence from breakthrough innovations suggests that framing the problem itself is often the rate-limiting inventive leap. Likewise, inventorship is tethered to conception of a solution, excluding problem-framers even when their conceptual contributions enable the invention.

Copyright law, too, embeds a similar bias. By defining authorship exclusively in terms of expression rather than ideation, it excludes from joint authorship those whose creative labor lies in defining themes, structures, or conceptual frames that others realize in expressive form. Although some scholars, such as Jeannie Fromer and Judge Posner, have hinted at more capacious accounts of creativity, current doctrine remains limited in scope.

This problem has become all the more pressing in the age of artificial intelligence. While AI excels at solving pre-defined problems, it cannot autonomously find or frame problems—a limitation that underscores the importance of human creativity upstream of expression or invention. Ironically, as doctrinal debates rage over whether AI-generated works qualify for IP protection, courts and agencies have paid little attention to the human labor of problem definition that often structures AI use.

The current policy conversation has largely focused on whether and when AI can be credited—rather than using this moment to ask deeper questions about the nature of human creativity. A richer theory of innovation—one that foregrounds human framing, ideation, and interdisciplinary connection—could help reorient these debates.

I conclude by proposing a reoriented framework for IP law—one that does not grant property rights in ideas themselves, but that recognizes the value of idea generation, problem finding, and framing in both invention and authorship. This could take the form of doctrinal adjustments (e.g., recognizing problem framers as co-inventors or co-authors), shifts in how we evaluate obviousness, or the development of parallel incentive systems that reward upstream creativity. More broadly, it suggests that IP law, even as it regulates a narrow slice of the innovation process, should be informed by a richer, more psychologically accurate theory of creativity. Greater attention to problem finding and framing could not only correct this imbalance but also offer new tools for evaluating human creativity in the age of AI.