

Enhancing Patent Quality: Screening out Low-Quality Patents and Trolling Litigation

Comment submitted by *Scott Duke Kominers, Harvard Society of Fellows*

A principal goal of the patent quality initiative is to “provide certainty as to [patents’] validity to encourage investment in research, development, and commercialization.” However, my colleagues and I have evidence suggesting that a large number of patents are used by non-practicing entities (NPEs) in a fashion that is not only non-commercial, but directly impedes other firms’ research, development, and commercialization efforts.

Our research shows that NPEs—in particular, large patent aggregators—on average act as patent trolls: They target firms that are flush with cash (or have just had large positive cash shocks), even if that cash is not derived from alleged infringement. Moreover, NPEs typically target firms that are busy with non-intellectual property lawsuits, or are otherwise likely to settle. The cash-targeting behavior we observe seems to be unique to NPE-driven intellectual property litigation. Cash is neither a determinant of practicing entities’ (PEs’) intellectual property lawsuits, nor a driver of other forms of litigation (tort, contract, securities, environmental, or labor).

Meanwhile, as we also show, NPE litigation has a real negative impact on future innovative activity at targeted firms. Losing to an NPE (either in court or through settlement) leads a firm to decrease its future research and development activity by about 30%, on average.¹

To ensure that patents serve to encourage—rather than hinder—innovative activity, we must reduce (or preferably, eliminate) trolling behavior by non-practicing entities. Towards this goal, in this note I comment on how the Patent and Trademark Office can use screening mechanisms at or before the time of patent assertion/litigation to improve both the quality of patent lawsuits and the aggregate patent stock.²

Much of the debate on policy solutions to patent trolling focuses on mechanisms that punish trolling after-the-fact—most commonly, enforced fee shifting and/or penalties for litigants whose

This comment is in response to the Patent and Trademark Office’s “Request for Comments on Enhancing Patent Quality” (80 *Federal Register* 6475, posted on February 2, 2015). The views presented herein are those of the author and his collaborators, Lauren Cohen and Umit G. Gurun, and do not necessarily reflect the views of The Harvard Society of Fellows or its affiliates.

¹The research findings described here are presented in “Patent Trolls: Evidence from Targeted Firms,” joint work with Lauren Cohen and Umit G. Gurun, originally circulated as National Bureau of Economic Research Working Paper No. 20322. Our empirical analysis examines *all* NPE lawsuits filed against publicly-traded firms from 2000–2012 (over 3,500 lawsuits in total), using data from both PatentFreedom/RPX and the work of Christopher Anthony Cotropia, Jay P. Kesan, and David L. Schwartz (99 *Minnesota Law Review* 649, (2014)).

²Each of my collaborators has submitted a comment that begins with the same discussion of our research results, but focuses on a different aspect of patent quality.

patents are eventually invalidated in court decisions. However, the majority of intellectual property lawsuits end in settlement, often without a court appearance; such lawsuits are barely affected by changes in post-trial penalties.³ Thus, it is imperative that we find ways to screen out trolling *at or before the time of patent assertion*.

The Patent and Trademark Office is considering ways of using crowdsourcing to uncover prior art.⁴ My collaborators and I strongly support these efforts. We believe that crowd-knowledge can be useful not only in identifying “hard-to-find” prior art (as the current Patent and Trademark Office proposal suggests), but also in identifying patents that have overbroad but obfuscated claims, for which prior art may be comparatively easy to locate once the right readers are found.

Moreover, crowd-knowledge need not only be used at the time of patent prosecution. By enabling the market to identify and challenge weak, but frequently asserted patents, the Patent and Trademark Office can further use the “wisdom of the crowds” to improve the patent stock. For example, the Electronic Frontier Foundation recently crowdsourced a successful challenge to Personal Audio’s patent on Internet-distributed episodic content (US8112504).⁵ In this case, a large number of individuals believed Personal Audio’s patent to be both (1) invalid and (2) dangerous to practicing firms’ productivity; hence, they banded together to identify prior art and fund an inter partes review. Such efforts could eliminate many of the low-quality patents that are actively used in trolling, if only the review process were easier to invoke. Reducing the costs of inter partes review would enable the Patent and Trademark Office to more effectively leverage crowd-knowledge to screen out low-quality patents.

Further instruments are available to screen patents at the time of assertion. We might, for example, require that patent litigation actions be preceded by a brief court appearance and/or patent review (paid for by the plaintiff, or potentially funded through patent application and maintenance fees). This “advance screening” mechanism would do little to harm litigants with legitimate claims. Reasonable infringement claims based on high-quality patents would clear review successfully; this might even *help* the plaintiff, by encouraging efficient settlement or making it possible to secure further litigation financing. However, unreasonable claims based on low-quality patents—trolling—could be crippled through advance screening. A negative finding in pre-litigation review would bolster the defendant firm’s case, thus making it easier to take the plaintiff to court. In extreme cases, advance reviews might even be used to trigger re-examination (and potential invalidation) of asserted patents deemed to be of sufficiently low-quality.

Screening mechanisms could be powerful tools for improving both the aggregate patent stock and the quality of patent lawsuits. Although further study is required to identify the most effective approaches to screening, it seems clear that we should at least begin to investigate policy solutions aimed at screening out trolling lawsuits, instead of just focusing on penalizing trolling after-the-fact.

³In principle, the incentive to bring suit is affected by a change in the *ex post* penalty, even if most suits are settled (see, e.g., the analysis of Steven Shavell (11 *Journal of Legal Studies* 57, (1982))). However, if the probability of settlement remains high—as is likely, since settlement in trolling actions is often driven by lack of funds, time, or ability to go to court—then the impact of a penalty change on lawsuit propensity is marginal.

⁴This approach is part of the ninth “existing quality effort” described in the “Request for Comments” (80 *Federal Register* 6475).

⁵See, e.g., the report by Joe Mullin in *Ars Technica*, published April 10, 2015.