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COMMENT:
EQUILIBRIUM IN A TECHNOLOGY-
SPECIFIC PATENT SYSTEM

Mark D. Janis[†]

I am happy to have the opportunity to comment on a series of articles by Professors Dan Burk and Mark Lemley.¹ All of these works explore a pair of claims: patent law rules are (to some extent) and should be (to a greater extent) tailored to specific technologies.

The descriptive claim is not particularly startling. Of course patent law is technology-specific, at least at the level of specific claims adjudicated in specific cases.² The normative claim, however, deserves close scrutiny, and, unfortunately, Burk and Lemley have given us an abundance of interesting material to scrutinize.

The Burk and Lemley project envisions a complex patent law regime composed of a mixture of (1) a small core of technology-neutral principles, and (2) a large and growing set of technology-specific applications of those principles. For me, the proposed mixture of principles raises two sorts of questions. First, what are the jurisprudential implications? Second, and perhaps more importantly, what are the institutional implications?

The answers to these questions may ultimately determine whether we should applaud or weep in response to the Burk and Lemley proposals. I suggest that we applaud, but I reserve the right to weep.

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¹ Dan L. Burk & Mark A. Lemley, *Biotechnology's Uncertainty Principle*, 54 CASE W. RES. L. REV. 691 (2004) [hereinafter Burk & Lemley, *Biotechnology's Uncertainty Principle*]; Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155 (2002); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575 (2003).

² Or, to put it more succinctly, "duh."

I. JURISPRUDENTIAL IMPLICATIONS OF POLICY LEVERS

The Burk and Lemley proposals prompt several questions about the future character of patent jurisprudence. One threshold question is whether we will even be able to talk about a unitary patent law jurisprudence if the Burk and Lemley proposals are implemented. Might we instead find ourselves confronted with fifty-seven patent law jurisprudences, each specifically tailored to particular technologies?

Beyond the threshold question is a serious question about equilibrium. Burk and Lemley propose a system that will equilibrate around a small number of technology-neutral principles, and then a larger number of technology-specific applications, or policy levers. Is it really possible to achieve that kind of equilibrium? I have a number of reservations.

First, it might not be very easy to articulate and agree upon what the technology-neutral principles really are. What is the source of these principles? The Constitution? The statute? Which doctrines form the substantive content of these principles? Obviousness? Equivalency? Strict liability for infringement, the presumption of validity, the correlation between disclosure and claim scope? Are those the irreducible minimum? How would we know?

Second, even if we can figure out what the technology-neutral principles are, how can we be sure that they are going to persist? For example, suppose that we identify obviousness as one of the technology-neutral principles, but we subsequently decide that innovation in some technological areas will proceed better if we have no obviousness requirement, or at most a very minimal one. Does obviousness then disappear from the list of technology-neutral principles? What if we find that innovation will proceed better in some other technological areas if we have what amounts to anticopy protection, or an intent requirement? Does strict liability for infringement then likewise disappear from the core of technology-neutral principles? The Burk and Lemley proposals seem likely to generate a cascade effect in which technology-neutral principles disappear and are replaced by multiple technology-specific rules.

Perhaps the Burk and Lemley proposals should give greater attention to elucidating controls that would guard against the dissolution of technology-neutral principles and thereby maintain some level of systemic coherence. For example, perhaps the Federal Circuit should be encouraged to announce explicitly in its

opinions which principles belong to the central core, and which constitute technology-specific applications.

The Federal Circuit may shift the equilibrium between technology-general principles and technology-specific rules in other ways as well. The Federal Circuit abhors a vacuum. Under the Burk and Lemley regime, when the Federal Circuit is applying specially tailored policy levers for biotechnology, for example, can the court resist the temptation to say something that sounds like big law—technology-general law? Such statements have a propensity for finding their way into the patent law firmament, and not always within the technology-specific context in which they first arose.

A third reservation concerns boundary issues. How do we minimize costly ancillary litigation over boundary issues in the proposed regime? Mark Lemley mentioned many examples of the kind of boundary issues emanating from technology-specific statutes.³ He proposed that judges resolve these issues, and gave reasons why Congress is not well-suited for the task.⁴ I agree with the skepticism about the effectiveness of technology-specific statutes, but I wonder whether the sheer number of boundary disputes might strain the skills of even the most sophisticated patent judges. For example, in a regime that features biotechnology-specific rules, innumerable ancillary disputes could arise about whether the patented subject matter in controversy can be categorized as biotechnology. We are also likely to see many intractable disputes about what is or is not software. The Burk and Lemley proposals stimulate the creation of subject matter boundaries, suggesting that there is great potential for controversy over those boundaries.

Consider the following example directed to biotechnology. Burk and Lemley argue that, if one thinks carefully about innovation in biotechnology, one concludes that high obviousness and low disclosure requirements would be preferred over the reverse.⁵ But the Burk and Lemley proposals discuss biotechnology as if it were a monolith. Is it really? Should innovation policy be uniform across all areas of biotechnology? Or might innovation policy for biomedicine differ materially from innovation policy for agricultural biotechnology, which might, in turn, differ from appropriate innovation policy for some other area of biotechnology? Moreover, each of these individualized judgments about innova-

³ Mark A. Lemley, Remarks at the Case Western Reserve University School of Law Center for Law, Technology and the Arts Symposium: The Past, Present, and Future of the Federal Circuit (Nov. 14, 2003) (transcript on file with the Case Western Reserve Law Review).

⁴ *Id.*

⁵ Burk & Lemley, *Biotechnology's Uncertainty Principle*, *supra* note 1, at 691.

tion policy is very likely to require revision over time. We might end up with an insurmountable number of boundaries to police, a regime of near-infinite specificity.

Finally, when the Burk and Lemley article discusses customizing patent law standards to fit particular technologies, are they in fact talking about customizing *standards*?⁶ Might they instead be talking about customizing *evidence*? For example, they suggest that we customize notions of the person of ordinary skill in the art. But the suggestions seem to favor the creation of additional legal standards, such as separate rules about timing for the “person of ordinary skill” inquiry in obviousness and that inquiry in enablement.

Perhaps we don’t really need additional changes of technology-specific rules; instead, perhaps we need better technology-specific evidence. The Federal Circuit could play a role by developing mechanisms to guide litigants in developing such evidence, and by encouraging litigants to develop a detailed factual record on the applicable person of ordinary skill.⁷

II. INSTITUTIONAL IMPLICATIONS

The Burk and Lemley proposals also prompt a variety of questions regarding institutional concerns. How will institutional competencies affect the ultimate goal of fitting patent law with innovation policy in specific industries? For example, if we have technology-specific patent law, does that mean that we need to have technology-specific patent law institutions to fit with this technology-specific patent law?

First, consider how institutional arrangements may influence substantive patentability standards, as applied in patent examination. If the Federal Circuit elaborates specialized patentability standards for biotechnology, is it also preferable under the Burk and Lemley proposals to have specialized biotechnology patent examination? Arguably, we already have specialized examination within art units, and examination does not proceed uniformly across those art units, as evidenced by empirical studies. But examiners are still bound together by the common culture of the Patent and Trademark Office (“PTO”), which may continually counterbalance the tendency toward differential examination.

⁶ See *id.* at 708.

⁷ See *Velander v. Garner*, 348 F.3d 1359 (Fed. Cir. 2003), for an example of an elaborate discussion on a factual record on the person of ordinary skill in a particular field in biotechnology.

Do the Burk and Lemley proposals require or encourage the rearrangement of institutions to facilitate differential examination? In this regard, the proposals may tie in with the PTO's twenty-first century strategic plan, which discusses contracting out search capabilities and prior art search services.⁸ Such an arrangement could lead to divergent prior art searches across technology areas, which could, in turn, play a role in stimulating the development of disparate, technology-specific patentability standards.

Second, consider how institutional arrangements might influence the presumption of validity. If we had a regime of truly specialized technology-specific patent examinations, then logically we would end up with different treatment of the presumption of validity in different industries. I am not certain whether we should applaud or weep. This is another illustration of the phenomenon that I previously discussed, in which the technology-specific application of technology-neutral patent principles might push back against those principles. Even if we initially characterized the presumption of validity as a technology-neutral principle, it may turn out that we simply cannot defend a unitary presumption of validity. We would have to eliminate it from the list of supposedly technology-neutral principles.

Third, consider how institutional arrangements might influence obviousness. Suppose we decided to implement a higher obviousness standard in biotechnology. What would that really mean? The art is the art, so a "higher" obviousness standard might really mean that the PTO offers thinner evidentiary support for an initial finding of motivation to combine prior art references. Suppose that applicants respond by filing more elaborate expert affidavit evidence. Because the PTO cannot hire its own experts, it might systematically lose these battles. That is, as a matter of the relevant institutional arrangements, it might simply be unrealistic to expect the PTO to be able to sustain a "heightened" obviousness standard. Heightened obviousness may have to be left to the few cases that actually reach the courts.

While the preceding observations focus predominantly on the PTO, the Burk and Lemley proposals also have implications for the institutional infrastructure for patent infringement litigation. For example, the possibility of specialized trial level patent adjudication. If we have technology-specific patent law, do we need to have technology-specific trial level adjudication? I do not think that Burk and Lemley propose that, and I am not very sympathetic

⁸ U.S. PATENT AND TRADEMARK OFFICE, THE 21ST CENTURY STRATEGIC PLAN 4 (updated Feb. 3, 2003), at http://www.uspto.gov/web/offices/com/strat21/stratplan_03feb2003.pdf.

to such a proposal. If it turns out that much of what we are discussing is factual, then there may be pressure to create a specialized technology-savvy bench. This is quite ironic. The general thrust of the Burk and Lemley proposals is to tell the Federal Circuit to flex its muscles, to use the discretion that the statute provides the court to deploy policy levers in a technology-specific way. Suppose that the Federal Circuit does so. Suppose that the exercise demonstrates that technological specificity means fact-specificity, factual nuance. And suppose further that it is plain to everyone that the Federal Circuit, as an appellate tribunal, really is not well-suited to adjudicating nuanced disputes over facts—instead, that task is better conducted by a trial-level forum, particularly a technologically-savvy trial-level forum. The Federal Circuit, by exercising its power, will divest itself of that very power. It is hard for me to imagine the Federal Circuit deliberately acting as the agent of its own undoing.

Professors Burk and Lemley have produced a very intriguing project, and I am interested in the next three, four, seven or eight papers that this project is bound to generate. Thank you.