Remedies and Procedure: Patent Law's Continuing Frontiers

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THE RELENTLESS AND COMMONLY ACCELERATING PACE OF TECHNOLOGICAL DEVELOPMENT HAS GENERATED GREAT BOONS FOR HUMANITY.¹ BUT THE EVER-CHANGING LANDSCAPE OF POSSIBILITIES, DEMANDS, AND PERILS ASSOCIATED WITH SUCH DEVELOPMENT HAS ALSO PLACED CONTINUAL PRESSURE ON INDIVIDUALS AND SOCIAL INSTITUTIONS TO ADAPT.² MODERN TIMES HAVE PRESENTED US WITH THE CHALLENGE OF HOW TO EXPLOIT, NAVIGATE, AND, AT LEAST SOMETIMES, ESCAPE THE SEA OF DATA, DATA GATHERING, AND DATA ANALYTICS THAT COMPUTING AND COMMUNICATIONS TECHNOLOGIES HAVE ENABLED.³

UNSURPRISINGLY, PATENT LAW FACES ITS OWN FORMS OF INFORMATION PROCESSING PROBLEMS AND OPPORTUNITIES. ACCELERATED TECHNOLOGICAL DEVELOPMENT APPEARS GENERALLY TO TRANSzend INTO GREATER NUMBERS OF PATENT APPLICATIONS AND ISSUED PATENTS, THUS GENERATING MORE BASES FOR CLAIMS OF PATENT INFRINGEMENT.⁴ THE UNITED STATES PATENT AND TRADEMARK OFFICE (PTO) STRUGGLES TO MAINTAIN EXAMINATION QUALITY WHILE KEEPING UP—OR AT LEAST NOT FALLING FURTHER BEHIND—IN REVIEWING THE HUNDREDS OF THOUSANDS OF APPLICATIONS FILED EACH YEAR.⁵ THROUGH THE PATENT TRIAL AND APPEAL BOARD (PTAB), THE PTO ALSO

¹ See, e.g., Gene M. Grossman & Elhanan Helpman, Endogenous Innovation in the Theory of Growth, 8 J. Econ. Persp. 23, 26 (1994) (“In our view, a story of growth that neglects technological progress is both ahistorical and implausible.”).
² See, e.g., Clayton Christensen, Thomas Craig & Stuart Hart, The Great Disruption, 80 FOREIGN AFF. 80, 81 (2001) (“Disruptive technologies create major new growth in the industries they penetrate—even when they cause traditionally entrenched firms to fail”).
³ See, e.g., Paul Ohm, Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization, 57 UCLA L. Rev. 1701, 1705 (2010) (discussing how the rise of reidentification technologies with respect to supposedly anonymized data “makes all of our secrets fundamentally easier to discover and reveal”).
⁵ See id. at 487 (“[E]ven the massive scaling up of the USPTO workforce in recent decades appears to have had relatively little success in addressing fundamental concerns about patent quality.”).
manages a busy docket of appeals from original examinations and reexaminations.\(^6\) The PTAB has a further substantial docket of trial proceedings—called by names such as “inter partes review” and “post-grant review”—in which, generally speaking, panels of three administrative patent judges entertain arguments about the validity of issued patent claims.\(^7\) Outside the PTO, the district courts need to process thousands of patent-infringement filings each year.\(^8\) The United States Court of Appeals for the Federal Circuit must decide hundreds of appeals from patent-related decisions of the district courts, the PTO, and other administrative actors such as the International Trade Commission and the Court of Federal Claims.\(^9\) Outside the government, private parties face challenges in identifying patents that might be infringed, assessing the relative strength or weakness of arguments of patent claim infringement and invalidity, and assigning discrete values to individual patents and individual patented technologies, which often account for only a small part of the functionality of a multicomponent product or multistage process.\(^10\)

Both the requirements of international treaty regimes and the accumulated weight of developed statutory provisions, case law, and legal traditions place substantial practical constraints on the extent to which the patent system can respond to its information processing challenges with changes to patent law’s fundamental substantive contours, such as the nature of requirements for patentability.\(^11\) The United States Supreme Court appears to have caused an uptick in the stringency of patent law’s demand that an invention

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6. John M. Golden, Working Without Chevron: The PTO as Prime Mover, 65 DUKE L.J. 1657, 1667 (2016) (“The PTAB tends to resolve approximately ten thousand appeals each year in ex parte proceedings involving only the patent applicant or owner.”).

7. Id. (observing that, by the middle of 2014 through late 2015, the PTAB “already ha[d] a case flow of petitions for inter partes review equaling nearly one-third of the flow of new patent cases into all the U.S. district courts”); see also Stuart Minor Benjamin & Arti K. Rai, Administrative Power in the Era of Patent Stare Decisis, 65 DUKE L.J. 1563, 1569 (2016) (describing a typical PTAB post-issuance proceeding as involving “a three-judge panel”).


10. See Golden, supra note 4, at 476 (“The continual acceleration of patenting rates strains both public and private actors’ capacities to perform all the various activities necessary for a patent system to function effectively.”).

be nonobvious in order to be patentable, but this uptick seems more in the nature of a marginal change than in the nature of a major watershed. This adjustment has apparently helped initial fact-finders dispose of doubtful patent claims, but the adjustment does not appear to have done much to stem the flood of applications into the system or to alleviate the sense of players in certain industries that they consistently confront tangled patent thickets. The Court has made more dramatic interventions on questions of subject-matter eligibility—i.e., the types of things, such as genetic sequences or computer programs—that may be patented. But even here, the interventions have been substantially limited in scope: the Court has refused to say that either business methods or software is generally unpatentable. While the Court’s decisions relating to the patentability of genetic sequences and medical diagnostic methods have been disruptive for substantial industry sectors, they have not quashed patenting in pharmaceuticals and biotechnology and appear to have left patenting in other fields of technology largely untouched.

Hence, although one can imagine changes to basic substantive doctrines of patentability and patent scope that could greatly alleviate or mitigate the patent system’s information demands, there seems relatively little possibility that such dramatic substantive change will occur in the near to mid-range future. The more wide open and inviting frontiers for important legal innovations appear to lie in the realms of (1) remedies, an aspect of patent law that did not receive much attention until the last decade and a half; and (2) institutions and procedure, which, over the past few decades, have featured a series of huge developments, from the creation of a centralized court

15. See John M. Golden, Flook Says One Thing, Diehr Says Another: A Need for Housecleaning in the Law of Patentable Subject Matter, 82 GEO. WASH. L. REV. 1765, 1765 (2014) (“In a series of recent cases, the U.S. Supreme Court has made clear that there are substantial constraints on the categories of actions and materials for which patent protection may be afforded.”).
16. See Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347, 2354 (2014) (declining to declaring software to be generally ineligible for patenting and stating instead that “an invention is not rendered ineligible for patent simply because it involves an abstract concept”); see also Bilski, 561 U.S. at 606 (holding that there is no general prohibition of patenting business methods).
17. See Golden, supra note 4, at 1765–66 (discussing subject-matter eligibility decisions as having localized effects on “key kinds of modern innovation”).
of appeals for patent cases in the form of the Federal Circuit, to the introduction and progressive elaboration of post-issuance proceedings at the PTO, to the introduction of maintenance fees. Treaty commitments such as those under TRIPS appear to leave room for significant innovation in both of these realms, although how much is predictably a matter of debate.

Certain forms of institutional and procedural innovation could face a major and perhaps insuperable hurdle, however—institutional and procedural constraints imposed by the United States Constitution, as that document is understood by the nation’s Article III courts and, most particularly, the United States Supreme Court. Some constitutional constraints, such as requirements of due process, are, on their face or in practice, relatively flexible and thus unlikely to present insuperable hurdles while channeling institutional and procedural innovation in a way that avoids constitutional problems, including practical problems of bias or unfairness that the patent system would do well to avoid. Others could more problematically present...

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21. Saurabh Vishnubhakat, Expired Patents, 64 CATH. U. L. REV. 419, 430 n.79 (2015) (“All patents that issue from applications that were filed on or after December 12, 1980 are subject to three maintenance fees.”).


23. Cf. JERRY L. MASH ET AL., ADMINISTRATIVE LAW: THE AMERICAN PUBLIC LAW SYSTEM—CASES AND MATERIALS 402 (7th ed. 2014) (“Given our peculiar governmental and constitutional history, procedural due process claims . . . provide many of the occasions for our on-going conversation concerning the appropriate structure of an increasingly administrative state.”). For example, under at least some circumstances, due process constraints might condemn PTO rehearing practices under which the Director, after being disappointed by a decision on patentability or patent validity by a panel of administrative patent judges, convenes a new panel to rehear the case with the hope or knowledge that the new panel “will render the decision [the Director] desires,” In re Alappat, 33 F.3d 1526, 1535 (Fed. Cir. 1994) (en banc). Golden, supra note 6, at 1663–64 & n.36; cf. Myers v. United States, 272 U.S. 52, 135 (1926) (acknowledging that “there may be duties of a quasi-judicial character imposed on executive officers and members of executive tribunals whose decisions after hearing affect interests of individuals, the discharge of which the President cannot in a particular case properly influence or control”). But Congress might be able to amend the statute to permit the Director to review such a decision personally as long as such direct review comports with due process. See Laura S. Trice, Note, Adjudication by Fiat: The Need for Procedural Safeguards in Attorney General Review of Board of Immigration Appeals Decisions, 85 N.Y.U. L.
relatively rigid and distinctively American barriers to institutional and procedural innovations that other countries’ patent systems might be free to develop.

Concern with civil “jury rights and the prerogatives of Article III courts” led me and three coauthors to restrict a proposed administrative review process for newly launched patent litigation so that the administrative review was non-binding and merely advisory in relation to later proceedings in district courts. We argued that this proposed institutional reform would have substantial value despite this limitation. But one could wonder whether giving greater weight to the expert opinions thereby generated would lead to a further improved patent system even after the concerns that underlie the Constitution’s civil jury provision are taken into account.

Likewise, constitutional challenge to inter partes review proceedings conducted by the PTAB on the grounds invoked by the petitioner in Oil States Energy Services, LLC v. Greene’s Energy Group, LLC—namely, that these proceedings violate civil jury rights or Article III of the Constitution—raises questions about the extent to which the United States will be relatively uniquely constrained in developing a patent system that processes applications and assertions of invalidity or infringement in ways that are socially optimal. At least with respect to Article III concerns of the separation and balance of powers, the United States might be best served by an approach to constitutional interpretation and application that remains substantially pragmatic and views the Constitution as generally designed to help ensure that issues and problems are assigned to the branch of government most institutionally competent to handle them.

Although, as with the proposal for preliminary administrative review described above, one can often imagine ways to structure or restructure a procedural reform to overcome or avoid even the most rigid constitutional

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Rev. 1766, 1770 (2010) (“Agency head or secretarial review of administrative adjudication is an accepted and relatively common arrangement within the administrative state.”).

24 Cohen, Golden, Gurun & Kominers, supra note 8, at 1828.

25 See id. at 1808–10 (outlining basic arguments for why such administrative review could be effective).


27 Brief for Petitioner at 3, Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC, 137 S. Ct. 2239 (2017) (No. 16-712) (“Neither Article III nor the Seventh Amendment tolerates [inter partes review by the PTAB].”).

28 See Chadha v. Immigr. & Naturalization Serv., 634 F.2d 408, 423 (9th Cir. 1980) (Kennedy, J.) (describing “two respects in which the separation of powers enhances the responsible autonomy of each branch and thereby the efficiency of the government as a whole”), aff’d, 462 U.S. 919 (1983).
constraints, the game might not be worth the candle. The need for such institutional or procedural contortions might result in the reform failing to be adopted or failing to advance its purposes as desired even if adopted.

In sum, the relatively relentless pressure placed on the current patent system by a generally growing rate of patent application and patent issuance appears currently to have two primary outlets for relief: (1) developments in the law on patent remedies and (2) institutional and procedural innovations. Presently, the PTAB lies at the center of this second path to meaningful reform. The United States Constitution limits some of the routes that such institutional or procedural reform might take. We can hope that such limits are commonly beneficial to the extent that they help ensure proper respect for parties and their associated legal rights. The Supreme Court’s opinion in *Oil States* might provide guidance on the extent to which such limits might be more substantial than Congress has previously understood, arguably to the point of being detrimental examples of how, from a policy perspective, prohibitory rules can be over-inclusive in reach and excessively rigid in application. But whatever the outcome of *Oil States*, questions of remedies and procedure appear likely to dominate much of the continuing frontiers of patent law development and adaptation. We can only hope that patent law’s adjusters and reformers are up to the task.