

The Patent Act and the Artisan Perspective: A Response to Pedraza-Fariña and Whalen's *Ghost*

John M. Golden*

ABSTRACT: In The Ghost in the Patent System: An Empirical Study of Patent Law's Elusive "Skilled Artisan", Laura Pedraza-Fariña and Ryan Whalen shed helpful light on the question of how, in addressing a variety of questions in patent law, courts apply the perspectives of legally imagined people of skill in the relevant technological arts. Pedraza-Fariña and Whalen's empirical analysis of court opinions indicates that written analysis specifically directed to these legal constructs has tended to be relatively cursory. Pedraza-Fariña and Whalen suggest not only that greater judicial engagement in this area is desirable but also that such engagement would ideally involve distinction between the perspectives for assessing (1) an invention's nonobviousness, (2) the sufficiency of a patent's disclosure for properly enabling the invention's making and use, and (3) the scope of subject matter covered by the patent. Like a prior Response by Timothy Holbrook and Mark Janis, this Essay questions whether Pedraza-Fariña and Whalen have established the desirability of disaggregating the perspectives for assessing nonobviousness and enablement. On the other hand, the Essay also highlights how the U.S. Patent Act uses language to describe the perspective for gauging enablement that differs from the language used to describe the perspective for assessing nonobviousness. Whereas the Act speaks of enabling "any person skilled in the art," the Act speaks of nonobviousness to "a person having ordinary skill in the art." Although U.S. patent law currently treats these formulations as equivalent, one could imagine their being treated as substantially distinct, albeit not necessarily in alignment with the difference in perspectives suggested by Pedraza-Fariña and Whalen. Regardless, Pedraza-Fariña and Whalen's contributions bring welcome attention to potential ways to reshape the assessment of multiple important questions in patent law.

* Edward S. Knight Chair in Law, Entrepreneurialism and Innovation, University of Texas at Austin School of Law.

INTRODUCTION	30
I. <i>GHOST</i> IN THE PATENT SYSTEM AND HOLBROOK AND JANIS’S RESPONSE	31
A. <i>PEDRAZA-FARIÑA</i> AND <i>WHALEN’S GHOST</i> AND ITS PATENT LAW <i>BACKGROUND</i>	31
B. <i>HOLBROOK</i> AND <i>JANIS’S “GHOSTED” PHOSITA</i>	37
C. <i>EMPIRICAL CONTRIBUTIONS</i> AND <i>PARTY-BEHAVIOR QUESTIONS</i>	39
II. ARTISAN PERSPECTIVES IN THE PATENT ACT.....	43
A. <i>CLAIM CONSTRUCTION</i> AND <i>THE ORDINARY ARTISAN</i>	43
B. <i>PARTIAL STANDARDIZATION</i> OF <i>ARTISAN PERSPECTIVES</i> IN 201	44
C. <i>SECTION 103’S ORDINARY ARTISAN</i> VERSUS § 112(A)’S “ANY” <i>ARTISAN, AND GHOST’S “USER ONLY” ARTISAN</i>	46
CONCLUSION.....	49

INTRODUCTION

In *The Ghost in the Patent System: An Empirical Study of Patent Law’s Elusive “Skilled Artisan”* (hereinafter *Ghost*),¹ Laura Pedraza-Fariña and Ryan Whalen bring welcome attention to how courts interact with the perspectives of people of skill in the relevant technological arts that are purportedly central to key questions of patent law. Timothy Holbrook and Mark Janis have already provided one response, *How the Supreme Court Ghosted the PHOSITA: Amgen and Legal Constructs in Patent Law* (hereinafter *Supreme Court Ghosted*) to Pedraza-Fariña and Whalen’s *Ghost*.² This Essay provides another. Like Holbrook and Janis in *Supreme Court Ghosted*, I question the persuasiveness of the case for disaggregating United States patent law’s artisan perspectives for nonobviousness and enablement. More distinctly, I analyze the specific text of the United States Patent Act in relation to the question of disaggregation. I also highlight empirical contributions from Pedraza-Fariña and Whalen’s Article and suggest ways their initial study might be helpfully elaborated and extended.

Part I discusses Pedraza-Fariña and Whalen’s *Ghost* and Holbrook and Janis’s *Supreme Court Ghosted*. Section I.C of Part I particularly focuses on

1. See generally Laura Pedraza-Fariña & Ryan Whalen, *The Ghost in the Patent System: An Empirical Study of Patent Law’s Elusive “Skilled Artisan”*, 108 IOWA L. REV. 247 (2022) [hereinafter *Ghost*].

2. See generally Timothy R. Holbrook & Mark D. Janis, *How the Supreme Court Ghosted the PHOSITA: Amgen and Legal Constructs in Patent Law*, 109 IOWA L. REV. ONLINE 83 (2024) [hereinafter *Supreme Court Ghosted*].

Ghost's empirical contributions and how these might be built upon by examining the extent to which judicial discussions of artisan perspectives are shaped by party behavior. For example, systematic party decisions to focus on subject matter other than the details of artisan perspectives might indicate that the specifics of artisan perspectives are not as critical in actual litigation (or patent prosecution) practice as the conceptual centrality of the perspectives to relevant legal standards might suggest. Hence, further empirical work might show that relative judicial inattention to details about the relevant artisan commonly reflects rational decision-making by parties seeking the best means to support their arguments.

Part II addresses how the text of the United States Patent Act does or does not provide instruction on the artisan perspectives for claim construction, nonobviousness, and enablement. Section II.A notes that there is no statutory instruction on the proper perspective for claim construction and indicates my continued inclination toward embracing an “attorney-plus-artisan perspective”—“the perspective of a patent attorney with access to the technological knowledge of an ordinary artisan”—for this purpose.³ Sections II.B and II.C consider the specific language of the U.S. Patent Act on the perspectives for nonobviousness and enablement assessments. An important point here is the difference between the ordinary artisan language of the Patent Act’s nonobviousness provision and the “any” artisan language of the Patent Act’s enablement provision.⁴

I. GHOST IN THE PATENT SYSTEM AND HOLBROOK AND JANIS’S RESPONSE

This Part provides a brief overview of both Pedraza-Fariña and Whalen’s *Ghost* and Holbrook and Janis’s *Supreme Court Ghosted*. The Part then describes empirical contributions of *Ghost* while also raising the question of the extent to which courts’ relative lack of engagement with the details of an ordinary artisan perspective might reflect parties’ decisions not to engage very substantially with such details.

A. PEDRAZA-FARIÑA AND WHALEN’S GHOST AND ITS PATENT LAW BACKGROUND

As *Ghost* relates, standards invoking the perspective of a person of skill in the relevant art are used in assessing a patent’s satisfaction of key requirements for patentability and also in determining a patent’s scope—i.e., how much technology is subject to patent rights to exclude others from

3. John M. Golden, *Construing Patent Claims According to Their “Interpretive Community”: A Call for an Attorney-Plus-Artisan Perspective*, 21 HARV. J.L. & TECH. 321, 328 (2008); see *infra* Section II.A.

4. See *infra* Section II.C.

activities such as making and using a patented invention.⁵ The patentability requirements on which *Ghost* focuses are those of nonobviousness and enablement.⁶ The nonobviousness requirement demands that a claimed invention have been nonobvious—i.e., not obvious—to one of ordinary skill in the relevant art having knowledge of the pertinent prior art either at the time of invention—for patents subject to the U.S. Patent Act as it read before amendment by the America Invents Act of 2011 (“AIA”)—or before the effective filing date of pertinent patent claims—for patents subject to AIA amendments.⁷ The nonobviousness requirement thus helps ensure that a patented invention represents an at least somewhat significant advance over what was known or used before.⁸ The enablement requirement demands that a patent’s written description and figures disclose details about the claimed invention sufficient “to enable any person skilled in the art” to make and use the invention without undue experimentation.⁹ The enablement requirement helps ensure that substantial information about a patented invention becomes part of the public domain even before a patent expires and that at least some members of the public will be able to readily and freely make and use the invention after the patent expires.¹⁰

Thus, patent law’s nonobviousness and enablement requirements play critical roles in helping ensure that, for the public at large, the grant of patent rights is worth what Thomas Jefferson termed the “embarrassment” to the

5. See Pedraza-Fariña & Whalen, *supra* note 1, at 249 (discussing a patent document’s disclosure and scope-defining functions as well as the requirement that a patented invention have been nonobvious at the relevant time).

6. See *id.* at 250–51 (describing the ordinary artisan concept as having a litigation presence “in large part related to three key doctrinal areas: obviousness, enablement, and claim construction”).

7. Compare pre-AIA 35 U.S.C. § 103(a) (2006) (declaring an invention to be unpatentable if it “as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains”), with AIA 35 U.S.C. § 103 (2018) (declaring an invention to be unpatentable if it “as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains”).

8. See Pedraza-Fariña & Whalen, *supra* note 1, at 249 (indicating that the nonobviousness requirement helps ensure that a patented invention constitutes “a technologically meaningful advance”).

9. 35 U.S.C. § 112(a) (2018) (requiring that the patent document “contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same”); see also *FS.com Inc. v. Int’l Trade Comm’n*, 65 F.4th 1373, 1375 (Fed. Cir. 2023) (“To enable, ‘the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.’” (quoting *MagSil Corp. v. Hitachi Glob. Storage Techs., Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012))).

10. See JOHN M. GOLDEN, F. SCOTT KIEFF, PAULINE NEWMAN & HENRY E. SMITH, *PRINCIPLES OF PATENT LAW: CASES AND MATERIALS* 565 (7th ed. 2018) (discussing how patent law’s disclosure requirements help “ensure that information about how to make and use an invention is made public so that others can readily learn and build on the basic knowledge behind the invention”).

public interest that their grant predictably inflicts.¹¹ From an economic perspective, this embarrassment comes from a patent's allowing a patent owner to restrict the availability of a patented invention below the level of availability of the invention expected in a fully competitive or otherwise patent-free market.¹² Limitations on patent rights, such as the limited patent term and requirements for patent rights like nonobviousness and enablement, are often conceived as promoting a reasonably balanced patent bargain that benefits the public as well as the patent owner.¹³ If patent bargains are generally well balanced to serve the public interest, the restriction of access to legal use of inventions that patents impose should not generate overall costs for the public that outweigh the overall gains to the public from the patent system's provision of incentives for innovation.¹⁴

The artisan perspectives invoked in the standards for nonobviousness and enablement help set the terms for the patent bargain. As Pedraza-Fariña and Whalen note, these perspectives are legal constructs in that they do not necessarily track the knowledge or capacity of any actual person of skill in the relevant art, although the perspectives are generally viewed as tracking significant characteristics of actual artisans.¹⁵ Importantly, patent law's use of artisan perspectives mean that its nonobviousness and enablement requirements operate differently than if the relevant perspective were simply that of the ordinary person, who does not necessarily have any substantial skill, never mind ordinary skill, in the particular technological art of the claimed invention. In general, the use of a skilled artisan perspective for assessing nonobviousness facially makes the nonobviousness requirement more demanding than if a more general ordinary person perspective were applied. Individuals of ordinary skill in the pertinent art presumably have more knowledge and capacity relevant for generating the claimed invention than

11. Letter from Thomas Jefferson to Isaac M'Pherson (Aug. 13, 1813), in 6 THE WRITINGS OF THOMAS JEFFERSON 175, 181 (H.A. Washington ed., 2017) ("Considering the exclusive right to invention as given not of natural right, but for the benefit of society, I know well the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.")

12. See GOLDEN, KIEFF, NEWMAN & SMITH, *supra* note 10, at 30 (discussing how, under a conventional economic model, "the decreased quantity and increased price under monopoly result in a decrease in social surplus").

13. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150–51 (1989) (describing the U.S. patent system as "emod[ying] a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years").

14. See GOLDEN, KIEFF, NEWMAN & SMITH, *supra* note 10, at 32–40 (discussing patent system economics).

15. See Pedraza-Fariña & Whalen, *supra* note 1, at 258 (observing "[t]he PHOSITA's dual nature as a legal construct reflecting normative policy goals, and an empirical construct reflecting real-world practices" (emphasis in original)); see also GOLDEN, KIEFF, NEWMAN & SMITH, *supra* note 10, at 508 ("[I]n speaking of the person having ordinary skill in the art, we are not talking about the inventor or any other particular expert or handyman, but rather a hypothetical person who has ordinary skill in the art to which the claimed invention pertains." (emphasis in original)).

the ordinary person has. Correspondingly, an artisan perspective facially makes the requirement for an enabling disclosure less demanding than if the patent disclosure were required to enable the making and use of the claimed invention by an ordinary person: a skilled artisan's background knowledge and capacity mean that the artisan presumably needs less instruction than the ordinary person to readily reproduce and employ the claimed invention.

There is a natural question that follows from the use of artisan perspectives in nonobviousness and enablement analyses. Are these perspectives substantially the same?¹⁶ Pedraza-Fariña and Whalen suggest that the answer to this question should be “No.”¹⁷ More specifically, Pedraza-Fariña and Whalen draw inspiration from a 2002 article by Dan Burk and Mark Lemley¹⁸ in arguing that the ordinary artisan—a.k.a. the person having ordinary skill in the art (“PHOSITA”)—for purposes of nonobviousness analysis should not be the same as the relevant artisan for purposes of enablement analysis.¹⁹ In Pedraza-Fariña and Whalen's view, the ordinary artisan for purposes of nonobviousness analysis—a.k.a. “the obviousness PHOSITA”—is properly someone within the relevant “community of researchers whose members attempt to innovate.”²⁰ In contrast, for Pedraza-Fariña and Whalen, the relevant artisan for purposes of enablement analysis—a.k.a. “the enablement PHOSITA”—should be “a user who is not embedded in an innovator community” and thus who commonly lacks the “tacit, informal knowledge” attributable to the obviousness PHOSITA.²¹ If Pedraza-Fariña and Whalen's suggested approach were adopted, the result would be a more demanding enablement standard than applies when the enablement PHOSITA is equated to the nonobviousness PHOSITA. Under their suggested approach, “the enablement PHOSITA is not as able to fill gaps in the specification as the obviousness PHOSITA.”²²

16. See Holbrook & Janis, *supra* note 2, at 102 n.97 (“[O]ne of us has gone as far as to argue that obviousness *is* enablement: obviousness shows the public was in constructive possession of the patent through a collective, enabling disclosure.” (emphasis in original)). Generally speaking, the application of obviousness and enablement standards to equivalent sets of base information is hypothetical because nonobviousness is assessed relative to the “prior art” treated as predating a claimed invention, whereas enablement is assessed relative to the patent's own disclosure as well as relevant prior art. See *id.* (“The primary difference in the analysis is that the obviousness PHOSITA does not have to resort to the information disclosed in the patent.”).

17. See Pedraza-Fariña & Whalen, *supra* note 1, at 252 (describing Part III of their article as “develop[ing] three different PHOSITAs (the obviousness, enablement, and infringement PHOSITA) that reflect the distinct normative goals of each doctrine”).

18. See *id.* at 285 (quoting Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1205 (2002)).

19. See *id.* at 293–94 (“It is only by recognizing that a fully realized PHOSITA is also a flexible PHOSITA that responds to the different normative goals of the doctrines it is employed to serve[] that this hypothetical person will live up to its promise . . .”).

20. *Id.* at 284.

21. *Id.* at 285.

22. *Id.*

Pedraza-Fariña and Whalen suggest the possibility of a third ordinary artisan perspective—that of “the infringement PHOSITA”²³—for the tasks of interpreting patent claims (commonly called “claim construction”²⁴) and of assessing the definiteness of patent claims²⁵—i.e., whether patent claims are sufficiently clear to give what is deemed adequate notice of their scope.²⁶ Patent claims are “numbered clauses at the end of a [U.S.] patent [that] are meant to provide notice of what a patent covers and to describe a patented invention in a way that distinguishes it from prior art.”²⁷ Although the Patent Act does not explicitly assign a perspective from which patent claims are to be interpreted,²⁸ the U.S. Court of Appeals for the Federal Circuit has long held that patent claims are to be interpreted from the perspective of “a person of ordinary skill in the art”²⁹ and has indicated that the relevant art is, as for nonobviousness and enablement analyses, the art of “the field of the invention.”³⁰ In contrast, Pedraza-Fariña and Whalen suggest that, at least when “tak[ing] current [claim-construction] methodology as a given,” the relevant PHOSITA for claim construction, “the infringement PHOSITA,” might best be conceived “as “a reader and interpreter of patent documents,” someone who might lack the ability to “carry out experiments in the field” but who has the “interactional expertise” to “read, understand, and translate empirical results in any given technological field to a broader audience.”³¹

23. *Id.* at 290.

24. See J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 NW. U. L. REV. 1, 3 (2014) (“Patent claim construction—the process of interpreting patent boundaries—is central to the operation of the patent system.”).

25. See Pedraza-Fariña & Whalen, *supra* note 1, at 290 (suggesting an “interactional expert” definition for the infringement PHOSITA that “can help conceptually differentiate the infringement PHOSITA from its cousins, the obviousness and enablement PHOSITAs”).

26. See *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014) (understanding Section 112 of the U.S. Patent Act “to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty”).

27. Golden, *supra* note 3, at 322.

28. See Pedraza-Fariña & Whalen, *supra* note 1, at 289 (“The PHOSITA is only codified in the statutory provisions for obviousness and enablement.”).

29. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) (“We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.”).

30. *Id.* (explaining that reliance on an ordinary artisan perspective for claim construction “is based on the well-settled understanding that inventors are typically persons skilled in the field of the invention and that patents are addressed to and intended to be read by others of skill in the pertinent art”).

31. Pedraza-Fariña & Whalen, *supra* note 1, at 290 (emphasis omitted). Pedraza-Fariña and Whalen discuss the work of multiple legal scholars, including myself, en route to this conclusion. See *id.* at 287–90 (discussing prior scholarly discussions of approaches to claim construction).

Pedraza-Fariña and Whalen conclude by arguing that their tripartite approach to defining patent law's PHOSITAs will help bring "more certainty," "more meaningful appellate review," and "clearer guidance" to important issues in patent law.³² But Pedraza-Fariña and Whalen's suggestion of the normative desirability of abandoning "a unitary PHOSITA" across patent doctrines in favor of their restructured trio of PHOSITAs³³ represents only a part of the project of their article. They precede their normative analysis with substantial discussion of the results of an empirical study of the extent to which U.S. courts engage with the ordinary-artisan construct in their opinions.³⁴ For purposes of this study, Pedraza-Fariña and Whalen searched broadly within the CourtListener database for opinions "that included both the word 'patent' as well as any of the following phrases: skill in the art, ordinary skill, PHOSITA, skilled in the art, skilled artisan."³⁵ From the resulting dataset of 7,053 cases, they "randomly sampled 690," of which "367 were appellate cases."³⁶

Pedraza-Fariña and Whalen report a variety of findings from their 690-case sample. They find that "[o]ver half the cases in [this] sample raised the PHOSITA in relation to obviousness," which provided "by far the most common context for courts to engage with the notion of the PHOSITA."³⁷ Claim construction came in a distant second, providing a context for considering the PHOSITA in about a quarter of the sample's cases.³⁸ Further, despite Pedraza-Fariña and Whalen's suggestion of abandoning a unitary PHOSITA across legal doctrines, "courts appear[ed] to be using a universal, monolithic notion of who the PHOSITA is."³⁹ Even when mentioned, the PHOSITA did not seem commonly to be a focal point of dispute. In relation to appellate cases, Pedraza-Fariña and Whalen find that "the PHOSITA [was] not a source of significant disagreement": in their sample, they "identified sixty-five dissents that reference[d] the PHOSITA," and "only twelve engaged with either the PHOSITA's factual or legal context."⁴⁰ Moreover, findings related to the PHOSITA were "rarely . . . directly appealed" and "[a]ppellate cases only infrequently ma[de] reversals pertaining to the PHOSITA."⁴¹

Perhaps most significantly, Pedraza-Fariña and Whalen find that (1) even when courts made holdings relating to the ordinary artisan their engagement with the issue tended to be relatively cursory; and (2) courts' relative

32. *Id.* at 293.

33. *Id.* at 292.

34. *See id.* at 262–76 (discussing their empirical study and its results).

35. *Id.* at 262 n.82.

36. *Id.* at 262.

37. *Id.* at 263.

38. *See id.*

39. *Id.* at 269.

40. *Id.* at 264–65.

41. *Id.*

disengagement with PHOSITA-related questions seems sticky. In a random subset of five hundred cases coded for “depth of engagement with PHOSITA issues,” Pedraza-Fariña and Whalen find that “318 made at least one PHOSITA-related holding” but that, even in these 318 cases, the court’s engagement with the PHOSITA was “shallow,” “provid[ing] little-to-no reasoning or evidentiary support” for the court’s holding.⁴² Although a Supreme Court decision on nonobviousness in 2007 might have been expected to spur some more judicial attention to the PHOSITA standard,⁴³ a relatively “modest change” in the frequency with which court opinions used PHOSITA-related language in the five years before that decision and in the five years after that decision suggests to Pedraza-Fariña and Whalen “that this inflection point was more evolutionary than revolutionary.”⁴⁴

Pedraza-Fariña and Whalen’s empirical findings lead them to conclude that courts have fallen far short of engaging with the nature of the ordinary artisan’s perspective to the extent that Pedraza-Fariña and Whalen deem advisable.⁴⁵ In their view, “[b]y leaving an insufficient record of how to determine the level of appropriate skill and how to subsequently reason from that PHOSITA’s perspective, courts have left both future decision-makers and patent system participants under-equipped to definitively assess the myriad questions of patent law that depend upon the PHOSITA’s perspective.”⁴⁶ Accordingly, Pedraza-Fariña and Whalen predict that greater engagement with the PHOSITA standard “would facilitate both more certainty while also enabling more meaningful appellate review and thus clearer guidance in the development of related law.”⁴⁷

B. HOLBROOK AND JANIS’S “GHOSTED” PHOSITA

In *Supreme Court Ghosted*, Holbrook and Janis make a substantially two-pronged response to Pedraza-Fariña and Whalen’s article. First, in sympathy with a prominent concern of Pedraza-Fariña and Whalen, Holbrook and Janis lament how the U.S. Supreme Court’s 2023 opinion on the enablement requirement⁴⁸ eschewed an “opportunity to elaborate on how much capacity

42. *Id.* at 271.

43. *See* *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“The question is not whether the combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the art.”); *id.* at 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

44. Pedraza-Fariña & Whalen, *supra* note 1, at 274.

45. *See id.* at 292 (“Given the PHOSITA’s centrality to the entire corpus of patent law, and repeated Supreme Court interventions designed to enhance the PHOSITA’s role in litigation, it is startling how little attention decision-makers pay to the questions of the PHOSITA’s identity and ability.”).

46. *Id.* at 293.

47. *Id.*

48. *See* *Amgen Inc. v. Sanofi*, 598 U.S. 594, 610 (2023) (identifying a “simple statutory command[:] If a patent claims an entire class of processes, machines, manufactures, or

the relevant PHOSITA possessed, and how courts in the future might go about undertaking such calculations.”⁴⁹ Instead, according to Holbrook and Janis, the Court “offered an analysis in which the already ghostly PHOSITA vanished entirely.”⁵⁰ Second, Holbrook and Janis question some reforms suggested by Pedraza-Fariña and Whalen. In particular, Holbrook and Janis express skepticism about the value or validity of distinguishing between obviousness and enablement PHOSITAs.⁵¹ Holbrook and Janis indicate that, for purposes of evaluating issues relating to claim construction and infringement, U.S. patent law should turn to a “reasonable competitor” perspective, rather than a PHOSITA perspective.⁵²

Holbrook and Janis make further notable points. These include a historical point that Pedraza-Fariña and Whalen’s account of the ordinary artisan standard seems, at least to some degree, to understate the longstanding significance of artisan perspectives prior to the Patent Act of 1952, including in the United States’ very first patent act, the Patent Act of 1790.⁵³ The 1790 Patent Act specifically required provision, at the time of a patent’s grant, of “a “specification in writing”—and, as applicable, “drafts or models”—sufficient “to enable a workman or other person skilled in the art or manufacture, whereof it is a branch, or wherewith it may be nearest connected, to make, construct, or use the [patented invention].”⁵⁴ The wording that the 1790 Act used to describe the relevant perspective differs from the “person having ordinary skill in the art” language of the modern nonobviousness standard.⁵⁵ But as Section II.C below will emphasize, even the artisan language in the present-day Patent Act’s provision on enablement differs from that in the present-day provision on nonobviousness.⁵⁶

Holbrook and Janis make an additional institutional suggestion that is worth highlighting—namely, their suggestion that the U.S. Patent and Trademark Office (“PTO”), rather than the courts, might be a better forum for focused efforts to flesh out the nature of “the PHOSITA hypothetical person.”⁵⁷ Despite the reality that the PTO’s legal judgments on such matters

compositions of matter, the patent’s specification must enable a person skilled in the art to make and use the entire class”).

49. Holbrook & Janis, *supra* note 2, at 93.

50. *Id.*

51. *See id.* at 86–87 (“We contend that the enablement and obviousness PHOSITAs are the same construct and ought to stay that way.”).

52. *Id.* at 103 (“Our view is that such a competitor would understand both the legal and marketplace landscape, permitting a more accessible approach to issues surrounding claim construction and infringement.”).

53. *Id.* at 89.

54. Patent Act of 1790, ch. 7, § 2, 1 Stat. 109–112 (1790) (repealed 1793).

55. 35 U.S.C. § 103.

56. *See infra* Section II.C.

57. Holbrook & Janis, *supra* note 2, at 103.

would not “be binding on the courts under current law,”⁵⁸ I have sympathy with the notion that the PTO can often do more, whether through administrative rulemaking or adjudication, to help develop and clarify legal standards in patent law.⁵⁹ One of the areas in which the PTO might have influence is in elucidating the understandings and capacities of those with skill in particular technological arts.

C. EMPIRICAL CONTRIBUTIONS AND PARTY-BEHAVIOR QUESTIONS

Turning back to Pedraza-Fariña and Whalen’s *Ghost*, I wish to highlight its accomplishment in shedding new empirical light on when and how patent law’s ordinary artisan figures in judicial opinions. Holbrook and Janis are right to point out that “how much courts talk about the PHOSITA in their opinions” is not necessarily “a reliable proxy for the level of engagement” with the standard.⁶⁰ But in the absence of much earlier empirical work in this area, systematically chronicling what courts say about their use of artisan perspectives is a substantial step forward.

Admittedly, I would guess that Pedraza-Fariña and Whalen’s most fundamental results, in many ways, track what patent law experts would have expected. My guess, for example, would be that many practitioners would not be surprised by Pedraza-Fariña and Whalen’s finding that the ordinary artisan figures most prominently in judicial discussions of nonobviousness.⁶¹ Nor would they seem likely to be surprised by the finding that judicial discussions of artisan perspectives are commonly cursory.⁶²

Nonetheless, systematically developed empirical evidence has significant value in confirming that personal intuitions or posited conventional wisdom are, in fact, aligned with actual practice. Conventional wisdom is not always right, and impressions based on anecdotal evidence can be very wide of the mark.

Moreover, *Ghost* provides evidence of phenomena about which conventional wisdom was presumably more doubtful or nonexistent. An example is the observed relative lowness of the reversal rate at the U.S. Court

58. *Id.*

59. See John M. Golden, *Working Without Chevron: The PTO as Prime Mover*, 65 DUKE L.J. 1657, 1698–99 (2016) (“Just as the PTO can influence the courts’ ultimately authoritative interpretations of the law through persuasively supported interpretive rules, the agency can also influence those interpretations through persuasively supported [Patent Trial and Appeal Board (“PTAB”)] opinions or through PTAB opinions that at the very least help to crystallize available adjudicatory options or otherwise catalyze deliberation in Article III courts.”); John M. Golden, *The USPTO’s Soft Power: Who Needs Chevron Deference?*, 66 SMU L. REV. 541, 558 (2013) (“The [PTO]’s experience with utility and written-description guidelines shows that the [USPTO] can successfully use nonbinding rulemaking to provide a systematic response to certain patentability problems.”).

60. Holbrook & Janis, *supra* note 2, at 98.

61. See *supra* text accompanying note 41.

62. See *supra* text accompanying notes 40–42.

of Appeals for the Federal Circuit for lower-court fact findings or legal rulings relating to artisan perspectives.⁶³ At 4.5 percent or below in *Ghost's* sample, the reversal rate observed by Pedraza-Fariña and Whalen is less than half the reversal rates separately reported for other issues in patent cases.⁶⁴

A low observed reversal rate and low textual evidence of judicial engagement with artisan perspectives raise another significant question, however. This question concerns the extent to which such suggestions of relative unimportance to judicial determinations reflect the behavior of parties in litigation as opposed to a lack of interest or attention more strictly attributable to judges. Litigating parties, a term taken here to include the parties' attorneys, might often choose—indeed might commonly rationally choose—to emphasize matter material to resolution of their disputes other than details of relevant artisan perspectives. Consistent with this possibility, it is not hard to find statements in court opinions that parties agreed on the nature of the relevant artisan⁶⁵ or indicated that any disagreements over the nature of the artisan were immaterial to resolution of a question regarding claim construction, nonobviousness, or enablement.⁶⁶ Hence, one might wonder about the extent to which judges' cursory discussions of the nature of the relevant artisan reflect parties' indications to the court—whether through affirmative act or omission—that there is no great reason for the court to give more attention to this issue.

Even if courts had not previously signaled a lack of great interest in detailed application of an ordinary artisan perspective, parties might often rationally decide to give relatively short shrift to details regarding the relevant

63. See Pedraza-Fariña & Whalen, *supra* note 1, at 265 (“When the appeals court does make rulings pertaining to the PHOSITA, they tend to defer to the court of first instance (Figure 2).”).

64. See *id.* at 265–66.

65. See, e.g., *MModal Servs. Ltd. v. Nuance Commc'ns, Inc.*, No. 1:18-cv-0091-WMR, 2021 WL 4240482, at *3 (N.D. Ga. Feb. 19, 2021) (“The parties have agreed on the following levels of skill in the art regarding the asserted patents.”); *ArcelorMittal v. AK Steel Corp.*, No. 13-685, 2019 WL 3391814, at *3 (D. Del. July 26, 2019) (“Arcelor Mittal in its briefing agreed to AK’s proposed level of skill in the art for purposes of claim construction, and I will use the agreed-upon definition.”); *Cap Export, LLC v. Zinus, Inc.*, No. 2:16-cv-00371, 2019 WL 982883, at *3 (C.D. Cal. Jan. 24, 2019) (noting that “the parties agree that the level of ordinary skill in the art relating to the [relevant] patent is low”); *Flip Face U.S.A. v. Alexandria Moulding Inc.*, No. 1:15-cv-00883-MHC, 2019 WL 1211530, at *4 (N.D. Ga. Jan. 28, 2019) (noting party agreement on “the level of ordinary skill in the art”); cf. *Aerotel, Ltd. v. Telco Group, Inc.*, 433 F. App’x. 903, 918 n.11 (Fed. Cir. 2011) (observing that, although the parties indicated that they had not stipulated in the district court “as to the relevant level of skill in the art,” “neither party identified a dispute as to the level of skill”).

66. See, e.g., *Quest Diagnostics Investments LLC v. Lab. Corp. of Am. Holdings*, No. 18-01436, 2020 WL 210799, at *4 (D. Del. Jan. 14, 2020) (“As to the person of skill in the art, the parties’ definitions are substantially similar and the parties have agreed that the analysis is the same under both parties’ definitions of the level of ordinary skill in the art.”); cf. *McCoy v. Heal Sys., LLC*, 850 F. App’x. 785, 788–89 (Fed. Cir. 2021) (indicating that, even if the PTO’s Patent Trial and Appeal Board had erred in defining the ordinary artisan to have “expert skill,” the patentee “does not identify any instance where ‘expert’ knowledge was applied and led to an erroneous conclusion”).

artisan. Parties litigating civil disputes such as patent cases are often subject to length limits on briefs and time limits in hearings and trials.⁶⁷ Under these circumstances, they predictably must make decisions regarding which lines of inquiry or argument to pursue and how deeply to develop them.⁶⁸ In making these decisions, parties might expect that relevant decision-makers are most likely to be moved by arguments that are grounded in documentary evidence such as the contents of prior art, rather than arguments that turn on more poorly documented capabilities of a legal construct like patent law's ordinary artisan. The desirability of emphasizing documentary evidence might appear particularly sharp when a party is trying to prove obviousness or lack of enablement by the "clear and convincing evidence" generally required for a district court to declare a patent claim invalid.⁶⁹

There is a further reason that a party might doubt its ability to substantially advance its cause by focusing on details of the ordinary artisan. Even if a court develops a precise definition for the ordinary artisan, there are likely to be questions about what a judge or jury can glean from this definition. Suppose a decision-maker determines that the relevant artisan is a person with an undergraduate degree in mechanical engineering and at least four years' experience in designing plows pulled by tractors. What does this definition of the relevant artisan tell someone without that education or experience about what the artisan knows and can readily do? Even decision-makers with substantial backgrounds in science or engineering—indeed, perhaps especially such decision-makers—are likely to hesitate to believe that they can properly divine the understandings and capabilities of the relevant artisan at the relevant time without substantial reliance on documentary evidence of prior-art knowledge and/or expert testimony. Decision-makers with substantial backgrounds in science or technology might be especially likely to appreciate that deeper scientific or technological knowledge can lead to understandings and mental habits that are counterintuitive for the

67. See, e.g., Nora Freeman Engstrom, *The Diminished Trial*, 86 FORDHAM L. REV. 2131, 2144 (2018) ("Now, it seems that trial time limits are widely used and broadly endorsed."); David L. Schwartz, *Explaining the Demise of the Doctrine of Equivalents*, 26 BERKELEY TECH. L.J. 1157, 1172–73 (2011) ("Parties to an appeal are capped on the number of words permitted in the documents they submit to the court, and many district courts impose page limits on summary judgment or other important briefs."); Dabney J. Carr IV & Robert A. Angle, *Patent Infringement Litigation in the "Rocket Docket" of the Eastern District of Virginia*, FED. LAWYER, July/August 2019, at 60, 63 (discussing briefing, hearing, and trial-related limits on pages or time for patent suits in the Eastern District of Virginia).

68. See Martha K. Gooding & Ryan E. Lindsey, *Tempus Fugit: Practical Considerations for Trying a Case Against the Clock*, FED. LAWYER, Jan. 2006, at 42, 45 ("We do not need to study the Advisory Committee Notes to Rule 16 to know that a timed trial forces counsel to be selective, to set priorities, and to winnow the evidence down to what is necessary in order to prove the claims and defenses.")

69. *Core Wireless Licensing S.A.R.L. v. LG Elec., Inc.*, 880 F.3d 1356, 1364 (Fed. Cir. 2018) ("A patent is presumed valid, and the burden of establishing invalidity of a claim rests on the party asserting invalidity by clear and convincing evidence.")

comparatively inexpert. Scientific and technological surprise and wonder are not confined to the realms of quantum mechanics and Einstein's theories of relativity.

A party could use expert testimony to help instruct a court on the perspective of an ordinary artisan. A party could be reasonably concerned, however, that there are likely more effective uses of trial time than using extended expert testimony to explain details about the posited perspective of an abstract artisan. For challenging questions relating to patent claim construction or validity, decision-makers will often have reasons to hesitate before relying primarily on evidence—such as expert testimony—generated specifically for litigation. Such evidence is naturally susceptible to hindsight and cherry-picking biases in ways that can rightly lead decision-makers to look for supporting evidence whose origin lies outside the litigation context.⁷⁰ Moreover, in matters contested by opposing parties, there is likely to be conflicting expert testimony on matters such as the capabilities of the relevant artisan at the relevant time. A cautious decision-maker might naturally tilt toward favoring the testimony of an expert whose position seems best supported by accompanying documentary evidence.⁷¹

Consequently, even fundamentally technological questions of enablement and nonobviousness might frequently turn on a careful parsing of prior-art documents that might be at least loosely analogous to the attention to documentary evidence that predictably dominates claim construction.⁷² To the extent expert testimony is crucial, its key role might often lie in aiding the decision-maker in assessing the significance of relevant prior-art references such as prior-art patents and technical articles.

In short, Pedraza-Fariña and Whalen's *Ghost* advances the understanding of how judicial opinions discuss patent law's PHOSITA. As usual with good empirical work, however, *Ghost* leaves us with additional questions with respect to which further analysis or empirical work might be helpful. In particular, I

70. *Cf.* Phillips v. AWH Corp., 415 F.3d 1303, 1318 (Fed. Cir. 2005) (en banc) (“[E]xtrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.”); *id.* at 1321 (suggesting the cherry-picking concern in relation to use of dictionary definitions extrinsic to a patent by noting that “there may be a disconnect between the patentee’s responsibility to describe and claim his invention, and the dictionary editors’ objective of aggregating all possible definitions for particular words”).

71. *Cf.* Quanergy Sys., Inc. v. Velodyne Lidar USA, Inc., 24 F.4th 1406, 1412–13, 1417 (Fed. Cir. 2022) (discussing expert testimony on obviousness that the Patent Trial and Appeal Board found too unsupported and ill-developed to view as persuasive).

72. *Cf.* Markman v. Westview Instruments, Inc., 517 U.S. 370, 389 (1996) (discussing the Court’s general expectation that “any credibility determinations [in association with claim construction] will be subsumed within the necessarily sophisticated analysis of the whole document”); Teva Pharms. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 331 (2015) (“We recognize that a district court’s construction of a patent claim, like a district court’s interpretation of a written instrument, often requires the judge only to examine and to construe the document’s words without requiring the judge to resolve any underlying factual disputes.”).

would be interested in more evidence and discussion regarding the extent to which limited attention to details regarding the ordinary artisan reflects limitations on the evidence and arguments presented to the courts. Nonetheless, Pedraza-Fariña and Whalen merit significant kudos not only for elucidating what written judicial opinions have to say (or not) about patent law's artisans but also for providing a strong foundation and model for further study in this area.

II. ARTISAN PERSPECTIVES IN THE PATENT ACT

As noted in Section I.A., Pedraza-Fariña and Whalen's *Ghost* goes beyond reporting on the results of a systematic empirical study.⁷³ Through discussion of how the perspectives for assessing nonobviousness, enablement, and infringement might be distinguished and reformed, *Ghost* brings to the forefront important normative questions. Should nonobviousness, enablement, and patent scope be assessed from the same perspective or from different perspectives? From a practice or policy standpoint, what perspective makes the most sense in each context? What would be the impact of an alternative approach to artisan perspectives in patent law? Pedraza-Fariña and Whalen's answers to such questions are thoughtful and thought-provoking, even if for me, as for Holbrook and Janis,⁷⁴ they fall short of being entirely convincing.

This Part starts by discussing questions of claim construction, where there is some commonality in our critiques of the current approach. The remainder focuses on approaches to nonobviousness and enablement, where I am more skeptical of Pedraza-Fariña and Whalen's prescriptions. In particular, Sections II.B and II.C discuss how clues from the Patent Act's text and its recent amendment might inform approaches to application of ordinary artisan standards that at least partially align or diverge from those suggested by Pedraza-Fariña and Whalen. Although one can certainly debate the significance of the details of specific statutory language discussed in Sections II.B and II.C, these details do seem to merit the additional attention that I hope to bring to them.

A. CLAIM CONSTRUCTION AND THE ORDINARY ARTISAN

In relation to claim construction, Pedraza-Fariña and Whalen, Holbrook and Janis, and I all agree on an important point: U.S. patent law can do better than pretend that it is using the same perspective for patent claim construction as it uses for resolving questions of enablement and nonobviousness. The United States Supreme Court has held that claim construction is a matter for a judge and not a jury, even when resolving a claim-construction controversy involves resolving a disputed question of

73. See *supra* Section I.A.

74. See *supra* note 52 and accompanying text.

fact.⁷⁵ In so doing, the Supreme Court recognized that claim construction is just one example of the classic lawyerly task of “[t]he construction of written instruments.”⁷⁶ The Court has separately emphasized that highly technical facts relating to how scientists or engineers go about their business—such as the proper interpretation of a graph of scientific data—might play a key role in claim construction.⁷⁷ But even in so doing, the Court has “recognize[d] that a district court’s construction of a patent claim, like a district court’s interpretation of a written instrument, often requires the judge only to examine and to construe the document’s words without requiring the judge to resolve any underlying factual disputes.”⁷⁸

Given this backdrop, I continue to find appealing the notion that courts should describe claim-construction practice as operating from the perspective of “a patent attorney, albeit one who has not only legal expertise but also access to the technical knowledge of an artisan” in the field of invention.⁷⁹ My sense that courts should adopt this approach reflects, at least in part, the fact that they are not constrained by statutory language that points in another direction. In contrast with nonobviousness and enablement,⁸⁰ the Patent Act provides no explicit instruction on the perspective to be used in assessing the meaning of patent claims.⁸¹ Sections II.B and II.C discuss why I do not see such a substantial case, either in the Patent Act’s text or for reasons of policy, for distinguishing between the artisan perspectives for assessing enablement and nonobviousness.

B. PARTIAL STANDARDIZATION OF ARTISAN PERSPECTIVES IN 2011

The remainder of this Part will generally presume applicability of the statutory instructions on nonobviousness and enablement that apply on a

75. *Markman*, 517 U.S. at 372 (“We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.”); *see also Teva*, 574 U.S. at 321 (reaffirming these aspects of *Markman*).

76. *Markman*, 517 U.S. at 388.

77. *Teva*, 574 U.S. at 334–36 (discussing a dispute over the proper interpretation of a patent figure).

78. *Id.* at 331.

79. *Golden*, *supra* note 3, at 327 (contending that, for patent claim construction, “the optimal perspective is likely to be that of a patent attorney, albeit one who has not only legal expertise but also access to the technical knowledge of an artisan” in the field of invention).

80. *See* 35 U.S.C. § 103 (requiring “that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains”); *id.* § 112(a) (requiring “a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same”).

81. *See, e.g., id.* § 112(b) (associating no specific perspective with the requirement of “one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention”).

forward-looking basis under the 2011 AIA,⁸² which many consider to have featured the most significant substantive amendments to the Patent Act since its 1952 recodification.⁸³ A point highlighted by this Section is that the AIA substantially eliminated on a forward-looking basis—i.e., for patents and patent applications including claims with an effective filing date⁸⁴ of March 16, 2013, or later⁸⁵—a traditional distinction under which different times were associated with the artisan perspectives for nonobviousness and enablement.⁸⁶ This recent congressional move toward standardizing the times associated with artisan perspectives under the Patent Act seems worth attention.⁸⁷

As Pedraza-Fariña and Whalen note, pre-AIA law recognized a distinction between the times associated with assessments of nonobviousness and enablement: “While the obviousness PHOSITA is charged with knowing all relevant prior art available at the time of the invention, the enablement PHOSITA need only know those references that were ‘reasonably available’ to her, but at a later time—that of patent filing.”⁸⁸ The time for nonobviousness assessment was set explicitly by the language of § 103 of the Patent Act: in its pre-AIA form, this section provided that patent rights were not available “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious *at the time the invention was made* to a person having ordinary skill in the art to which said subject matter pertains.”⁸⁹ Meanwhile, albeit without explicit statutory instruction on the specific point, courts understood that “[e]nablement is determined as of the effective filing date of the

82. Leahy-Smith America Invents Act, Pub. L. No. 112–29, § 103, 125 Stat. 284, 287–89 (2011).

83. See, e.g., Sean B. Seymore, *Patent Forfeiture*, 72 DUKE L.J. 1019, 1037 n.126 (2023) (“The AIA is the most sweeping change to the U.S. patent system since the Patent Act of 1952.”); David O. Taylor, *Confusing Patent Eligibility*, 84 TENN. L. REV. 157, 174 (2016) (“Since 1952, the most important patent legislation has been the Leahy-Smith America Invents Act (‘America Invents Act’) of 2011.”).

84. Generally speaking, the effective filing date is “the filing date of the earliest application for which the patent or application [in question] is entitled, as to [the claimed] invention, to a right of priority.” 35 U.S.C. § 100(i)(1).

85. 35 U.S.C. § 100 (2018) (featuring a segment with the header “Effective Date of the 2011 Amendment; Savings Provisions”). The note clarifies that the relevant AIA provisions apply to patents that result from applications that, at some point, included a claim with an effective filing date of March 16, 2013, or later. *Id.*

86. See *infra* text accompanying notes 89–91.

87. Cf. Pedraza-Fariña & Whalen, *supra* note 1, at 261 (“The differences between obviousness and enablement along these two dimensions—content of the prior art and time—suggest that the obviousness and enablement PHOSITAs are not of a piece.”).

88. *Id.* (citing Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific*, 17 BERKELEY TECH. L.J. 1155, 1189–90 (2002), and John O. Tresansky, *PHOSITA - The Ubiquitous and Enigmatic Person in Patent Law*, 73 J. PAT. & TRADEMARK OFF. SOC’Y 37, 42–50 (1991)).

89. 35 U.S.C. § 103 (2006) (emphasis added).

[relevant] patent's application."⁹⁰ Because the invention date might have occurred substantially before the effective filing date, there was the possibility of a substantial gap between the date for assessing nonobviousness and that for assessing enablement.

For patents and patent applications to which the AIA applies, there is no longer the possibility of such a substantial gap. The AIA removed the invention date as a critical date for novelty and nonobviousness analysis and made the fundamental critical date for novelty and nonobviousness the effective filing date. Under the AIA, the new version of § 103 of the Patent Act provides:

A patent for a claimed invention may not be obtained . . . if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.⁹¹

Thus, under the AIA, both nonobviousness and enablement analyses use the effective filing date of relevant patent claims as their fundamental critical date.⁹²

True, the AIA leaves facially at least a sliver of a difference between the times for assessing enablement (the effective filing date) and nonobviousness (a time immediately “before the effective filing date”). Nonetheless, elimination of the prior possibility of a substantial temporal difference is a notable legislative step toward standardization of artisan perspectives for nonobviousness and enablement. Does this step suggest a more general congressional endorsement of a largely standardized PHOSITA for nonobviousness and enablement? Perhaps not: this standardizing effect could be viewed as a merely incidental result of the broader changes implemented by the AIA. In the face of Pedraza-Fariña and Whalen’s call for disaggregation of PHOSITA standards, however, a relatively recent statutory shift toward greater standardization is an intriguing counterpoint.

C. SECTION 103’S ORDINARY ARTISAN VERSUS § 112(A)’S “ANY” ARTISAN, AND GHOST’S “USER ONLY” ARTISAN

Notably, there is a facial difference in the statutorily stated artisan perspectives for nonobviousness and enablement that the AIA has maintained

90. ALZA Corp. v. Andrx Pharms., LLC, 603 F.3d 935, 940 (Fed. Cir. 2010).

91. 35 U.S.C. § 103 (emphasis added).

92. See Bayer Healthcare LLC v. Baxalta Inc., 989 F.3d 964, 981 (Fed. Cir. 2021) (“A claim is not enabled when, ‘at the effective filing date of the patent, one of ordinary skill in the art could not practice their full scope without undue experimentation.’” (quoting *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988))); SNIPR Techs. Ltd. v. Rockefeller Univ., 72 F.4th 1372, 1375 (Fed. Cir. 2023) (“With the AIA, obviousness is now considered from ‘the effective filing date of the claimed invention.’” (quoting 35 U.S.C. § 103)).

but which seems to have attracted little attention.⁹³ Section 103 of the Patent Act describes the artisan relevant for nonobviousness analysis as “a person having ordinary skill in the art to which the claimed invention pertains.”⁹⁴ In contrast, § 112(a) requires that the written description of a patent “enable *any person skilled in the art* to which it pertains, or with which it is most nearly connected, to make and use the same.”⁹⁵ Does the “any person skilled in the art” language of § 112(a) indicate that a patent’s written description need only enable some of the highest skilled members of the art “to make and use” the claimed invention? Or does it suggest that the written description needs to enable all people skilled in the art—even the least skilled—“to make and use” the same? Alternatively, consistent with predominant practice in the United States, should courts continue to act as if § 112(a)’s “any person skilled in the art” is essentially equivalent to § 103’s “person having ordinary skill in the art”?⁹⁶

Most immediately, plain-language meanings of “any” seem to support either the “enable even the least skilled” or “enable at least the most skilled” interpretations. A leading meaning of “any” is “one, no matter which, of several” as in “cannot find any answer.”⁹⁷ Under this meaning, the enablement requirement appears satisfied as long as the written description enables the most skilled person in the relevant art. An alternative meaning of “any,” however, is “whichever is chosen” as in “any fool knows that.”⁹⁸ Under this meaning, the written description needs to enable every person skilled in the art, including the least skilled, to make and use the claimed invention under this meaning. Between these two meanings, I favor the “whichever is chosen” meaning on the ground that enabling only the very most skilled artisan(s) would seem a comparatively thin reed for securing patent law’s apparent aim to ensure that the ability to make and use a patented invention becomes well established. A broad base of artisans able to make and use the claimed invention seems a much surer avenue to this end than a limited elite.

93. *But cf.* Naina Gulati & Jasmeet Gulati, *Knowledge/Skill Standards of a “Person Skilled in Art”: A Concern Less Visited*, 17 J. MARSHALL REV. INTELL. PROP. L. 588, 592–98 (2018) (noting that multiple treaty regimes speak of “a person skilled in the art,” rather than U.S. patent law’s “person having ordinary skill in the art”).

94. See *supra* text accompanying note 92.

95. 35 U.S.C. § 112(a) (emphasis added).

96. See *CenTrak, Inc. v. Sonitor Techs., Inc.*, 915 F.3d 1360, 1366 (Fed. Cir. 2019) (describing patent law’s disclosure requirements as having a purpose of “requir[ing] an inventor to provide sufficient detail in a patent’s specification to enable a person of ordinary skill in the art to make and use the invention”); *Wyeth & Cordis Corp. v. Abbott Lab’ys.*, 720 F.3d 1380, 1384 (Fed. Cir. 2013) (“Claims are not enabled when, at the effective filing date of the patent, one of ordinary skill in the art could not practice their full scope without undue experimentation.”).

97. OXFORD UNIV. PRESS, *THE POCKET OXFORD AMERICAN DICTIONARY OF CURRENT ENGLISH* 31 (2002) (emphasis omitted).

98. *Id.* (emphasis omitted).

One could then arrive at an equation between the “any person skilled in the art” standard and the PHOSITA standard by positing that, to be considered “skilled in the art,” one must have at least ordinary skill in the art. But if, instead, the least skilled of the relevant group of artisans is understood to be less skilled than § 103’s ordinary artisan, the resulting reading of § 112’s “any person skilled in the art” language would comport with at least one of Pedraza-Fariña and Whalen’s suggestions—namely, that the artisan for enablement be less skilled or knowledgeable than the obviousness PHOSITA.⁹⁹ Pedraza-Fariña and Whalen’s path to a lower artisan standard for enablement is distinct, however. They argue for a lower artisan standard for enablement based on a goal of “ensuring a patent is teaching anyone who wants to *use* the invention, not only those involved in active invention activities.”¹⁰⁰ Consistent with this argument, Pedraza-Fariña and Whalen envision “the enablement PHOSITA[] as a user who is not embedded in an innovator community[] [and thus] has less access to informal, tacit knowledge.”¹⁰¹

Statutory text suggests a need for clarification regarding the nature of Pedraza-Fariña and Whalen’s “user” category of artisans. Pedraza-Fariña and Whalen specify that their suggested enablement PHOSITA is intended to be “a user who is not embedded in an innovator community.”¹⁰² Does this specification mean that their suggested enablement PHOSITA is distinct from the artisan class of makers *and* users that § 112(a) of the Patent Act seems to contemplate? Section 112(a)’s language on enablement does not talk separately about enabling the *use* of a claimed invention: instead, that language requires enabling “any person skilled in the [pertinent] art . . . to *make and use* the” claimed invention.¹⁰³ My sense is that this language suggests that the relevant art is typically one of people who already know both how to make, as well as to use, things that are substantially analogous to the claimed invention—regardless of whether they engage in activities that might be considered “inventive” in a patent law sense.

Is a “user only” standard for enablement nonetheless more desirable, from a policy standpoint, than a “maker and (at least potential) user” standard? I cannot say that I know, but reasons to favor a “maker and user” standard seem to have some heft. Suppose that the fundamental policy concern of the enablement requirement is ensuring that a substantial body of people other than the inventor can learn from the patent how to make and use the claimed invention. A requirement of enabling a community of

99. See Pedraza-Fariña & Whalen, *supra* note 1, at 285 (suggesting that the enablement PHOSITA would ideally be viewed as “ha[ving] less access to informal, tacit knowledge than the obviousness PHOSITA”).

100. *Id.* (emphasis in original).

101. *Id.*

102. *Id.*

103. 35 U.S.C. § 112(a) (emphasis added).

ordinary artisans who make and (at least potentially) use similar things seems sufficient to accomplish this end, and the added social utility from enabling a further community of “user only” individuals seems less clearly significant. “Makers” who wish to commercialize their products presumably have reason to teach other members of the public how to use them—or to design their products so that no substantial instruction is necessary. Moreover, the added cost to would-be patentees and the patent system from a requirement to enable “user only” individuals in addition to ordinary makers and users might be nontrivial and perhaps even wasteful. Teaching those who intend only to be users how to make, as well as to use, the invention might place a significantly increased instructional burden on patentees—and result in significantly bloated specifications—without much significant benefit for the public.

In short, § 112(a)’s “any” artisan language suggests an underappreciated opportunity to view the artisan standard for enablement (as well as patent law’s separate requirement of a satisfactory written description¹⁰⁴) as meaningfully distinct from the artisan standard for nonobviousness. Still, requiring enablement of the same ordinary artisan as that used for assessing nonobviousness seems sufficient to achieve a plausible understanding of the purpose of patent law’s enablement requirement. As Holbrook and Janis emphasize, there is the question of whether “the added complexity [of different PHOSITAs for nonobviousness and enablement] would be helpful in practice.”¹⁰⁵ Section I.C has suggested that, in disputes over nonobviousness and enablement, debate over the capacities of a comparatively abstract, archetypal artisan will often sensibly act as no more than an adjunct to consideration of what documentary evidence shows about the prior-art knowledge and actions of people in the relevant field.¹⁰⁶ In this context, settlement on a single artisan standard for assessing both nonobviousness and the adequacy of patent disclosure might reasonably limit even more abstract debates over the nature of the relevant artisan for each context. The desirability of using significantly distinct artisan perspectives for assessing nonobviousness and enablement thus seems open to doubt.

CONCLUSION

Pedraza-Fariña and Whalen have done a great service by bringing to the forefront concerns about the proper perspectives for assessing a variety of

104. The Federal Circuit has indicated that the ordinary artisan perspective also applies to evaluation of satisfaction of a written description requirement that exists separately from the enablement requirement. *See In re Glob. IP Holdings LLC*, 927 F.3d 1373, 1376–77 (Fed. Cir. 2019) (describing the written description requirement as being “met when the specification clearly allows persons of ordinary skill to recognize that the inventor ‘invented what is’ claimed” (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010))).

105. Holbrook & Janis, *supra* note 2, at 102.

106. *See supra* text accompanying notes 64–73.

patent law questions and, perhaps even more notably, by providing a systematic empirical study on the subject. Their suggestion to tailor the relevant perspective on something like a doctrine-by-doctrine basis brings with it the normal interplay between the expected benefits from more detailed tailoring and the expected costs of the complications that this can create.¹⁰⁷ Under present circumstances, I do not find the expected cost-benefit balance from differentiating the nonobviousness and enablement perspectives to be convincingly favorable. Further analysis, argument, and empirical work could, however, tip the balance toward the differentiation that Pedraza-Fariña and Whalen propose. The current language of the Patent Act does feature a facial discrepancy between the artisan standards for nonobviousness and enablement, but the difference between § 112(a)'s "any person skilled in the art" language and § 103(a)'s "a person having ordinary skill in the art" language does not necessarily point toward Pedraza-Fariña and Whalen's proposal.¹⁰⁸ Congress could clarify the extent to which nonobviousness and enablement are to be conducted from substantially the same perspective in a later round of statutory amendments. In the meantime, work such as that of Pedraza-Fariña and Whalen, as well as that of commentators such as Holbrook and Janis, can nudge the patent community toward giving such questions more vigorous attention.

107. Cf. Louis Kaplow, *A Model of the Optimal Complexity of Legal Rules*, 11 J. L. ECON. & ORG. 150, 150-51 (1995) (noting that "[r]ules that are more complex can be tailored to acts more precisely" "[b]ut more complex rules achieve such benefits imperfectly and at a cost because of the difficulty in applying such rules").

108. See *supra* notes 94-105 and accompanying text.