1-1-2016

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PATENT “TROLLS” AND CLAIM CONSTRUCTION

Greg Reilly*

ABSTRACT

This Article explores the largely overlooked relationship between claim construction and patent assertion entities (patent “trolls”), finding that claim construction problems and trends benefit patent assertion entities. First, the Federal Circuit’s deep divide over the proper approach to claim construction creates uncertain patent scope, which is widely recognized as a core reason for the success of patent assertion entities. Second, case law and commentary increasingly endorse an approach to claim construction that relies on the “general meaning” in the technical field with limited reliance on the patent itself, which benefits patent assertion entities by increasing the breadth and uncertainty of patent scope. Third, the Supreme Court’s recent adoption of a more deferential standard of review for claim construction in Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc. increases the benefits patent assertion entities receive from filing in favorable district courts, like the Eastern District of Texas, as well as their incentives to do so.

If patent assertion entities are as problematic as widely thought, these claim construction problems and trends warrant reconsideration. Current claim construction rules and trends may exist despite their positive impact on patent assertion entities. And other means may exist for combating patent assertion entities without altering claim construction rules or trends. But the positive effects for patent assertion entities must be factored into any cost-benefit analysis of claim construction rules. Moreover, the fact that current claim construction rules and trends produce the conditions under which patent assertion entities thrive suggests that patent assertion entities may be a symptom of larger problems with claim construction doctrine.

INTRODUCTION

Patent claim construction—the interpretation of the short paragraphs (or “claims”) at the end of the patent that define the scope of the patentee’s rights—is “overwhelmingly the most critical patent issue in litigation.”1 It is

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also one of the most problematic and controversial. As one commentator explained:

Debates over whether the fundamental inquiry of patent law is broken, and what to do if it is, engross not only observers of the patent system, but also the judges of the U.S. Court of Appeals for the Federal Circuit, the appellate court entrusted with the control of patent law.\(^2\)

Patent assertion entities—also known as non-practicing entities or, more pejoratively, patent “trolls”\(^3\)—are also one of the most important, controversial, and arguably problematic issues in modern patent litigation. The debate over patent assertion entities has divided academics,\(^4\) led Congress to debate major patent reform for the second time in less than five years,\(^5\) and even caught the attention of the popular media, including an eleven-minute segment on Last Week Tonight with John Oliver.\(^6\)

Yet, the intersection of what are two of the most important, controversial, and problematic aspects of modern patent litigation has been largely overlooked. Unexplored are the related questions of how claim construction has contributed to the rise and/or viability of patent assertion entities and what concerns about patent assertion entities mean for the claim construction debates. Frankly, this is surprising. Problems with patent scope—both uncertainty and overbreadth of patent scope—are frequently identified as contributing to the rise and success of patent assertion entities.\(^7\) And “claim construction is fundamental to determining a patent’s scope.”\(^8\) The potential link between claim construction and patent assertion entities is, well, patent.


\(^3\) The terms patent assertion entity (PAE), non-practicing entity (NPE), and patent troll (“troll”) have different connotations but are often used interchangeably. See David L. Schwartz & Jay P. Kesan, Analyzing the Role of Non-Practicing Entities in the Patent System, 99 CORNELL L. REV. 425, 426 (2014).


\(^8\) Lefstin, supra note 2, at 1034.
This Article tackles the overlooked connection between patent assertion entities and claim construction. In broad strokes, the Article develops three major themes. First, problems with claim construction are significant contributors to the uncertainty and breadth of claim scope, which fuel patent assertion entities. Second, current trends in claim construction, both in the courts and the academy, will benefit patent assertion entities. Third, the problems and trends in claim construction undermine other efforts to combat patent assertion entities by making it easier for patent assertion entities to assert a non-frivolous litigation position supportable under current law.

More specifically, an outcome-determinative split within the Federal Circuit as to the proper approach to claim construction creates significant uncertainty about claim scope that cannot be resolved without litigation.9 Uncertain claim scope is widely seen as fueling patent assertion entities. Yet, courts and commentators are increasingly ignoring or downplaying the claim construction split when discussing patent notice problems. Some even suggest, contrary to empirical evidence, that the split has been resolved.10

Second, a claim construction approach that emphasizes the general meaning in the technical field and permits only limited resort to the disclosure in the patent itself continues to garner precedential and scholarly support. This approach undermines ex ante predictability of claim scope because it depends on testimony of expert witnesses and other evidence created or identified by the parties ex post in litigation, rather than on the publicly available and static patent document. Moreover, even its proponents acknowledge that it produces broader claim scope. Uncertain and broad claim scope are conditions in which patent assertion entities thrive, and, unsurprisingly, they tend to rely on the general meaning line of cases.11 Yet, even as general trends in patent law seek to constrain patent assertion entities, case law and scholars increasingly endorse the general meaning claim construction approach.12

Finally, the standard of appellate review for claim construction has long been the focal point of claim construction debates, with widespread calls in the academy and the bar for more deferential review. The Supreme Court’s recent decision in Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc. heeded those calls, rejecting the Federal Circuit’s de novo standard and providing greater deference to district court claim constructions. Teva largely has been laudable by the patent community, even though it is likely to help patent assertion entities.13 After Teva, district judges have incentives to place greater reliance on expert evidence and other external evidence, and less reliance on the patent document itself, which will tend to create broader claims and greater uncertainty. Moreover, patent assertion entities overwhelmingly file in the U.S. District Court for the Eastern District of Texas, which tends to favor

9 See infra subsection II.A.1.
10 See infra subsection II.A.2.
11 See infra subsection II.B.1.
12 See infra subsection II.B.2.
13 See infra subsection II.C.2.
patentees in a variety of ways, likely including claim construction. More def-erential review means more power for district courts, which accentuates pat-ent assertion entities’ advantage from choosing the forum and incentivizes districts that cater to patent assertion entities to adopt pro-patentee claim constructions.14

Having described the connection between claim construction problems and trends and patent assertion entities, the obvious question is what does it all mean? For those untroubled by patent assertion entities, perhaps not much. But for the majority of the patent community that worries, to varying extents, about the consequences of patent assertion entities for innovation, competition, and patent litigation, this Article suggests that the current direc-tion of claim construction is far from optimal.15 Claim construction trends also indirectly undermine other efforts to combat patent assertion entities. A variety of current proposals—pleading standards, Rule 11 sanctions, fee shift-ing—attempt to punish patent assertion entities for bringing frivolous, meritless, or weak claims. However, the uncertainty and breadth of potential claim scope created by the claim construction issues addressed in this Article make it easier for a patent assertion entity to identify a reasonable litigation position, undermining efforts to weed out claims based on their merits.16

Of course, there may be ways to address patent assertion entities without altering the direction of claim construction, such as venue reform, restricting functional claiming, or improving patent examination. And some may believe that current claim construction rules and trends are warranted despite (or except for) their effect on patent assertion entities. At the very least, however, claim construction should be part of the patent assertion entity debate and the consequences for patent assertion entities should be part of the claim construction debates.17 Moreover, the fact that current claim construction rules and trends produce the conditions in which patent assertion entities thrive suggests that patent assertion entities may be a symp-tom that reveals underlying problems with claim construction doctrine.18

Interestingly, and perhaps unsurprisingly, while courts, scholars, and most other commentators have overlooked the relationship between claim construction and patent assertion entities, the most popular targets for patent assertion entities—large technology companies like Google, Amazon, Yahoo!, Dell, and Twitter—have not. In amicus briefs in the Federal Circuit and Supreme Court, these companies reached conclusions similar to this Article’s: the claim construction split results in uncertain patent scope; a pat-

14 See infra subsection II.C.1.
15 See infra Section III.A.
16 See infra Section III.B.
17 See infra Section III.A.
18 Mark A. Lemley & A. Douglas Melamed, Missing the Forest for the Trolls, 113 COLUM. L. REV. 2117, 2121 (2013) ("Patent trolls alone are not the problem; they are a symptom of larger problems with the patent system. . . . Exposing the larger problems allows us to contemplate changes in patent law that will actually tackle the underlying pathologies of the patent system and the abusive conduct they enable.").
ent-focused approach better promotes public notice than the “general meaning” approach; and deferential appellate review undermines public notice and benefits patent holders. 19 These technology companies were clearly motivated by their experience with patent assertion entities, though they left the link largely implicit. 20 This Article makes that link explicit.

Part I provides an overview of the parallel debates over patent assertion entities and claim construction. Part II draws the connections between claim construction and patent assertion entities. Part III evaluates the consequences of these connections. A short conclusion follows.

I. PATENT LITIGATION PROBLEMS: “TROLLS” AND CLAIM CONSTRUCTION

Patent assertion entities and claim construction have been two of the most discussed and debated topics in patent law since the turn of this century, probably only rivaled or surpassed by patentable subject matter under 35 U.S.C. § 101. This Part provides brief background on the debates over each, before turning to the relationship of patent assertion entities and claim construction in the remainder of the Article.

A. The Patent “Troll” Debate

1. Overview of the Patent “Troll” Debate

In recent years, patent assertion entities have been central to most debates over the patent system. Patent assertion entities are estimated to have brought over fifty percent of all patent litigation in recent years. 21 They have received attention, and often criticism, from the White House, Congress, Supreme Court Justices, Federal Circuit judges, the Federal Trade Commission (FTC), corporations and industry groups, academics, the popular press, and the public at large. 22

Although the exact terminology and definitions vary, in rough terms, patent assertion entities are patent holders that do not commercialize inven-

20 Google et al. Teva Br., supra note 19, at 26–27.
tions or transfer technology ex ante in a way that helps other companies develop products. Instead, patent assertion entities purchase patents for the purpose of extracting licensing fees by suing (or threatening to sue) companies that have already developed products allegedly covered by the patent.23

A vigorous debate exists within the patent community regarding patent assertion entities. The majority view is that patent assertion entities tax innovation, stifle research and development, enrich investors at the expense of product-producing companies, increase litigation and litigation costs, and bring weak claims. The minority view contends that criticisms of patent assertion entities are overblown and unsupported and/or that patent assertion entities are actually beneficial to innovation by adding liquidity to the patent market and increasing the returns for small inventors.24

The merits of this debate are complex, perhaps intractable, and beyond the Article’s scope. Instead, the Article suggests that current claim construction rules and trends benefit, and perhaps even fuel, the patent assertion entity business model. Those interested in reforms to restrict patent assertion entities would be well-advised to focus at least some of their attention on claim construction.

2. The Relationship of Patent “Trolls” to Uncertain and Broad Claim Scope

Claim scope is central to discussions (especially criticisms) of patent assertion entities, with patent assertion entities associated with uncertain and broad claim scope.

First, the existence and success of patent assertion entities are often attributed to patents with “fuzzy boundaries” and vague claims.25 Leading commentators suggest that patent assertion entities purposefully seek out patents with vague or ambiguous claim language for purchase.26 This allows patent assertion entities to target technology that is different than that disclosed in the patent and developed after the patent issued but has now become firmly established and extract payments from those dependent on a particular technology.27 Relatedly, vagueness in claim language allows patent assertion entities to assert their patents broadly to cover a wide range of technology that exists in the market, technology that may only have a tangential relationship to that described in the patent.28 Importantly, technology users cannot avoid infringement before developing or adopting a technology because the vague claim language hinders ex ante efforts to identify or design around the subsequently asserted patent.29

24 Yeh, supra note 22, at 4–8.
25 Id. at 9–10.
27 Id.; Bessen, supra note 7.
28 Bessen, supra note 7.
29 Id.
Second, patent assertion entities are often said to rely on overly broad claim scope, whether due to the inherent breadth of the patent claims or because the ambiguity and vagueness of claim language permits the patent assertion entity to read the claim broadly. Broad patent scope allows the patent assertion entity to assert the patent against now-established technologies developed after the patent issued, as well as to assert it broadly against a large number of products and companies. The result is increased returns from the patent assertion entity’s investment in a patent.

That patent assertion entities most commonly assert patents on software-related inventions supports the importance of ambiguous and broad claim scope to their business model. The most likely reason for the popularity of software patents among patent assertion entities is that software patents tend to have vague and broad claim language, often written in “functional” terms that define a goal, rather than a specific means of achieving that goal.

B. Claim Construction Problems

1. The Relationship of Claim Construction and Patent Scope

The legal rights conferred by a patent are judged by the “claims” at the end of the patent: numbered paragraphs that describe the scope of the invention in a single, often tortuously written sentence. Like the words of any other legal document, patent claims must be interpreted to be applied. This process is called “claim construction” in patent lingo. Claim construction is widely recognized as the most important step in patent litigation. It is a threshold step for virtually every other issue in a patent case. And it is often case-dispositive or at least case-determinative (limiting the issues, the range of the dispute, facilitating settlement, etc.) because there is little dispute over how the technology works.

The meaning of patent claim terms, like all words, is determined by the context in which they are used. The context for patent claim terms includes the rest of the claim at issue, other claims in the patent, the description of the invention in the part of the patent referred to as the “specification,” and the record of the proceedings for obtaining the patent in the Patent and Trademark Office. These sources of context are known as “intrinsic evidence.” The context for patent claim terms also includes information about the background meaning of the term to a skilled person in the field (known as a “person having ordinary skill in the art” in patent lingo), as evidenced by...

30 White House PAE Report, supra note 21, at 4.
31 White House PAE Report, supra note 21, at 6; Bessen, supra note 7.
33 White House PAE Report, supra note 21, at 8; see also Mark A. Lemley, Software Patents and the Return of Functional Claiming, 2013 Wis. L. Rev. 905.
dictionaries, treatises, other scientific texts, other patents, and expert testimony. These sources of context are known as extrinsic evidence.\textsuperscript{35} The relative weight of the intrinsic context versus extrinsic context is hotly disputed, as discussed in subsection I.B.2 below.

Claim construction is crucial to both the certainty and breadth of patent claims. “[C]laim construction is fundamental to determining a patent’s scope”\textsuperscript{36} because the terms in a patent claim only acquire meaning, and therefore scope, when they are interpreted in the relevant context (i.e., construed). Therefore, the process for interpreting claims—what context is consulted, in what order, for what purpose, etc.—will determine whether a claim has broad or narrow scope.\textsuperscript{37} Likewise, the extent to which the process for interpreting claims is well-known, predictable, and easily replicable ex ante is a significant determinant of the certainty or uncertainty (more accurately, predictability or unpredictability) of patent scope.\textsuperscript{38}

Unsurprisingly, uncertainty and overbreadth in patent claim scope often are associated with claim construction problems. For example, one commentator noted that “uncertainty over the proper procedure for claim construction has led to uncertainty in patent scope, which in turn negates the notice and boundary-staking functions to be performed by the patent claim.”\textsuperscript{39} Another commentator pointed to flaws with the approach to claim construction as the cause of problematic breadth of patent claims.\textsuperscript{40}

2. Claim Construction Problems and Trends

Debates over claim construction have focused on two core problems. First, the primary focus of commentators has been the “uncertainty” created by the Federal Circuit’s high rate of reversal of district court claim construction decisions.\textsuperscript{41} In previous work, I referred to the uncertainty created by high reversal rates as “ex post uncertainty” because it only affected the ability to evaluate claim scope after litigation had been filed and after the district court had issued a claim construction decision. I argued that “ex post uncertainty” was far less significant than the difficulty of evaluating claim scope in advance of litigation, which I called “ex ante unpredictability.” Because the Federal Circuit’s high reversal rate had little to no effect on ex ante predictability, I questioned the importance of the standard of review.\textsuperscript{42}

\textsuperscript{35} See id. at 257–64.
\textsuperscript{36} Lefstin, supra note 2, at 1034.
\textsuperscript{38} See id. at 99–100.
\textsuperscript{40} See Oskar Liivak, Rescuing the Invention from the Cult of the Claim, 42 SETON HALL L. REV. 1, 15–16 (2012).
\textsuperscript{41} Lefstin, supra note 2, at 1034.
Regardless, conventional wisdom held that the Federal Circuit’s de novo standard of claim construction review created uncertain claim scope, with “an avalanche of critical commentary” and repeated, sharply split Federal Circuit en banc decisions. Ultimately, the Supreme Court in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.* held that the Federal Circuit must review the “evidentiary underpinnings” of claim construction for “clear error,” rather than de novo.

The second major problem with claim construction—a deep and persistent split within the precedent as to the proper approach to claim construction—has received comparatively less attention than the standard of review. Yet, because it directly affects ex ante predictability of claim scope, it is far more important. Although variably described, commentators generally agree there are two identifiable and conflicting methodological approaches. The primary difference between the two approaches is to what extent claim construction should rely on the written description of the invention found in the patent specification and to what extent it should rely on the background or general meaning of the claim term in the field of invention. Put another way, the split is over what constitutes the primary context for understanding patent claim terms: the patent itself or the background or general knowledge in the field.

The first claim construction methodology, which I call the “general meaning” approach (and others refer to as the “heavy presumption” or “procedural” approach), emphasizes the background or general meaning in the field, with only a limited role for the specification to alter this meaning. Under this approach, claim construction begins with a “heavy presumption” in favor of the “general,” “plain,” and/or “ordinary” meaning of the claim term to a skilled person in the field. Although not explicitly stated, this general meaning is presumably identified through extrinsic evidence of the understanding in the field, such as expert testimony, dictionaries, or scientific texts. Claim construction then turns to the specification to see if the patentee varied this general meaning. Importantly, this approach severely limits variance from the general meaning, permitting a “quite narrow” exception to general meaning only if the specification meets an “exacting standard.” Specifically, the patentee must have “clearly set forth” an express definition different from the general meaning or used “expressions of manifest exclusion or restriction” that clearly and unmistakably disclaimed claim scope.

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43 Lefstin, *supra* note 2, at 1034; see also Lighting Ballast Control, LLC v. Philips Elecs. N. Am. Corp., 744 F.3d 1272 (Fed. Cir. 2014) (en banc) (deciding case with six judges joining majority opinion, one judge concurring, and four judges dissenting).


45 See generally Reilly, *supra* note 42.

46 For a more detailed description and analysis of the methodological split, see Reilly, *supra* note 34, at 246–48, 256–66, upon which the following paragraphs rely.

The second approach to claim construction, which I call the “patent-focused approach” (and others refer to as the “Phillips,” “Vitronics,” or “holistic” approach) emphasizes the meaning that the claim term bears in the patent itself, regardless of the meaning it would generally have in the field of the invention. A claim term’s meaning is primarily derived by the contextual clues provided in the specification, which can define a claim term explicitly or implicitly. Extrinsic evidence can provide useful background information to understand the specification but cannot support a claim interpretation broader than that suggested by the specification.48

The Federal Circuit’s 2005 en banc decision in Phillips v. AWH Corp. seemed to resolve the methodological split in favor of a patent-focused approach.49 Unfortunately, empirical evidence demonstrates that the Federal Circuit’s precedent remains as divided on claim construction methodology as before Phillips.50 Despite Phillips’s fairly clear endorsement of a patent-focused approach, “courts have quietly been shifting back towards a ‘heavy presumption of ordinary meaning’ . . . with only limited exceptions when there has been lexicography or an express disclaimer,” a “trend [that] has been largely without fanfare.”51

The methodological split is not just a matter of semantics. Federal Circuit judges acknowledge a “fundamental split within the court as to . . . the proper approach to claim interpretation.”52 Empirical evidence confirms that the outcome of claim construction appeals depends on the methodological preference of the panel of Federal Circuit judges and that most disputes over claim construction result from disagreements over methodology. Specifically, ninety-five percent of splits within Federal Circuit panels and seventy-five to eighty-two percent of Federal Circuit reversals of district court claim constructions result from differences in the methodological approach applied.53

C. The Disconnect Between Patent “Troll” Debates and Claim Construction Debates

The role of claim construction has been largely absent from debates over patent assertion entities. Claim construction reform is not on the
agenda for current patent reform efforts focused on combatting patent assertion entities.54 Instead, reform proposals treat claim construction as part of the solution to current patent issues. Patent reform legislation would import the process for claim construction used in the district courts—long bemoaned by commentators—into U.S. Patent and Trademark Office (PTO) proceedings where the validity of the patent is challenged after the patent has been issued by the PTO.55 Other patent reform proposals would stay almost all discovery until after claim construction, on the assumption that claim construction will successfully weed out frivolous or weak claims brought by patent assertion entities.56

Even though claim construction has previously been blamed for uncertain and broad claim scope, claim construction is rarely mentioned as a way to reduce the uncertainty and breadth of claim scope in order to address the patent assertion entity “problem.” The most popular proposals focus on strengthening the requirements of 35 U.S.C. § 112 that the claims be “definite” and that the patent include a “written description” demonstrating that the patentee possessed the invention at the time of filing and an enabling disclosure that permits a skilled person in the field to make and use the invention.57 Other proposals include reducing the ability of patentees to hide or delay patent applications in the Patent and Trademark Office58 and including glossaries of key claim terms within the patent.59 Claim construction, however, has been ignored. To the contrary, overestimating the impact of Phillips v. AWH Corp. in resolving the Federal Circuit’s methodological split, the FTC concluded that current claim construction doctrine “marks a beneficial step from the perspective of public notice.”60

The connection between patent assertion entities and claim construction has been recognized in the limited context of interpreting functional claims in software patents.61 Professor Mark Lemley has suggested a particular solution to the problem of functional claiming in software patents by interpreting functional claims as limited to the means for implementing the function described in the patent.62 In essence, the proposal would except functional claims in software patents from normal claim construction rules and create special claim construction rules specific to software functional claims—rules that are essentially a strong version of the patent-focused approach. Professor Lemley and others seem to assume that the problem

55 See, e.g., Innovation Act, H.R. 9, 114th Cong. § 9(b) (2015).
56 See PATENT Act, S. 1137, 114th Cong. § 5 (2015); H.R. 9 § 3(d).
57 See Yeh, supra note 22, at 17.
58 See id.
60 Id. at 102.
61 See Bessen & Meurer, supra note 32, at 394.
62 See Lemley, supra note 33, at 943–49.
with functional software claims results from the inherent indeterminacy of software claims, rather than the problems with the claim construction process addressed in this Article.\footnote{See id. at 919–28 (suggesting that the problem with software claims comes primarily from the nature of software and the nature of claim drafting).}

Thus, the role of claim construction issues in facilitating the patent assertion entity business model is an important issue that has been largely absent from debates over patent assertion entities. The converse is also true. The beneficial effects for patent assertion entities have been largely overlooked in the claim construction debates.

II. CLAIM CONSTRUCTION PROBLEMS AND TRENDS HAVE BENEFITED, AND WILL, BENEFIT PATENT “TROLLS”

This Part turns to the intersection of the parallel debates over patent assertion entities and claim construction explored in Part I. Patent assertion entities benefit from three major problems in claim construction: the methodological split, the continued vitality of the general meaning approach, and the appellate standard of review. Surprisingly, while the general tide of patent law moves to limit and undermine patent assertion entities, claim construction trends are unwittingly moving in the opposite direction, i.e., in ways favorable to patent assertion entities.

A. The Claim Construction Split, Uncertainty, and Patent Assertion Entities


In theory, competitors and the public should be able to “understand what is the scope of the patent owner’s rights by obtaining the patent and prosecution history . . . and applying established rules of construction” and “be able to rest assured . . . that a judge . . . will similarly analyze the text of the patent and its associated public record and apply the established rules of construction.”\footnote{Markman v. Westview Instruments, Inc., 52 F.3d 967, 978–79 (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 (1996).} However, the Federal Circuit’s split over the proper approach to claim construction makes it difficult to “understand what is the scope of the patent owner’s rights” for two reasons.

First, there are no “established rules of construction.” Rather, there are two competing sets of rules for construction. One set of rules starts with a presumption in favor of the extrinsic, general meaning of the term in the field and only looks to the use in the patent itself for a clear and unmistakable rebuttal of this presumption. The other set of rules starts with the usage of the term in the patent itself and only looks to extrinsic usage to help clarify the intrinsic usage. The scope of the patentee’s rights depends on the choice between these two sets of rules.\footnote{See Wagner & Petherbridge, supra note 53, at 1170 (“The Federal Circuit’s claim construction jurisprudence evinces a distinct split in methodological approach, a dichot-}
ble basis on which to choose between them, as both have significant preceden-
tial support.66

Second, competitors cannot “rest assured . . . that a judge . . . will similarly analyze” the claim terms.67 If a competitor chooses to act based on a certain understanding of claim scope derived using one of the existing methodological approaches, it cannot predict that an unknown judge construing the claims in an unknown litigation will adopt the same approach.68 Different judges take different approaches to claim construction and, often, even the same judge will take different approaches to claim construction from case to case.69

In this way, the Federal Circuit’s split over the proper approach to claim construction is a contributor to the uncertainty of patent scope, perhaps a significant contributor. As one commentator explained, “[r]egardless of a methodology’s specifics, an inherent certainty [would be] created once courts decide on a single methodology.”70 There is near universal agreement that uncertain patent scope is a significant factor in the rise and success of patent assertion entities—a conclusion endorsed by the FTC,71 Congressional Research Service,72 White House,73 academics,74 and technology companies.75 If uncertain patent scope is a major factor fueling patent assertion entities, and the Federal Circuit’s split over the proper claim construction approach is a major cause of uncertain patent scope, the Federal Circuit’s continued claim construction split inures to the benefit of patent assertion entities.

I do not suggest that the Federal Circuit’s claim construction split is the sole cause of the uncertain patent scope on which patent assertion entities prey. Other factors are certainly at play, including “continuation” practice at the Patent Office that allows patentees to write claims to cover later developments in the market, the inherent indeterminacy of language (or at least of

66 See Cotropia, supra note 37, at 100 (“With only one methodology used, different individuals more likely will interpret the claims in the same manner, and thus, a higher likelihood of getting a similar result will exist.”).
67 Markman, 52 F.3d at 979.
68 See Cotropia, supra note 37, at 99 (“Without clear direction from the courts in the form of a single methodology, one cannot predict a claim’s meaning because of the uncertainty about which methodology will be used.”).
69 See Wagner & Petherbridge, supra note 53, at 1143–45, 1162–71 (concluding that “[t]he methodological approaches of individual judges on the Federal Circuit vary widely” and that “most Federal Circuit judges have relatively similar levels of inconsistency in claim construction methodology, but a small group is substantially more consistent”).
70 Cotropia, supra note 37, at 99.
71 See FTC REPORT, supra note 59, at 9.
72 See Yeh, supra note 22, at 9.
73 See WHITE HOUSE PAE REPORT, supra note 21, at 4.
74 See Bessen & Meurer, supra note 32, at 393–94.
describing software inventions in written words), and perhaps the indefiniteness doctrine. Professor Lemley is undoubtedly correct that widespread use of functional claiming—which defines the invention by what it does, not how it does it—in software patents is a major contributor to the patent “thicket” that undermines public notice. And, as explained below in Section II.B, the actual content of claim construction rules contribute to uncertain patent scope. My claim is more modest: there is an important connection between the claim construction split and patent assertion entities that is being overlooked in both the debates over claim construction and the debates over patent assertion entities.


To some extent, it is difficult to identify any “trend” in the case law and commentary related to the Federal Circuit’s claim construction split for the simple reason that the Federal Circuit has been significantly divided for a decade and a half. Empirical evidence indicates that Federal Circuit opinions in the years immediately after 2005’s Phillips v. AWH Corp., where the en banc court addressed the proper methodological approach, were as divided on methodology as they were before. Anecdotal accounts offer a more complex story in which early decisions after Phillips largely followed a single, patent-focused methodology, with a more recent rise in the “ordinary [or general] meaning” approach returning the Federal Circuit’s claim construction doctrine to the same split that existed before Phillips.

Regardless of whether the Federal Circuit is becoming more divided or is simply as divided as ever, the existence and importance of the Federal Circuit’s methodological split is increasingly ignored or downplayed. Post-Phillips, attention to the split over claim construction probably peaked in 2011 with a vigorous dissent from the Federal Circuit’s denial of rehearing en banc identifying “a fundamental split within the court as to . . . the proper approach to claim interpretation.” However, the Federal Circuit’s methodological split is increasingly absent from patent debates. For example, in briefing to the Supreme Court in Nautilus, Inc. v. Biosig Instruments, Inc., the

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76 See FTC Report, supra note 59, at 9–10, 15–16.
77 See Lemley, supra note 33.
78 See also Cotropia, supra note 37, at 100 (“The methodology chosen can still be unpredictable in application because of the canons it chooses to use.”).
80 415 F.3d 1303 (Fed. Cir. 2005).
81 See Wagner & Petherbridge, supra note 1, at 133–35 (finding “virtually no change” in methodological split after Phillips through 2007).
82 See Carlson & Dubal, supra note 51.
83 Retractable Techs., Inc. v. Becton, Dickinson & Co., 659 F.3d 1369, 1373 (Fed. Cir. 2011) (per curiam) (Moore, J., dissenting from the denial of the petition for rehearing en banc).
indefiniteness doctrine at issue in that case was blamed for uncertain patent scope, with the role of claim construction and the claim construction split ignored. Moreover, in reactions to the Supreme Court’s adoption of a more deferential standard of review for claim construction in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, commentators have described the Federal Circuit as having a singular “established methodology for construing claims,” overlooking the deep methodological split that Professors Wagner and Petherbridge empirically reconfirmed only a year before *Teva*. Two leading commentators even hope that *Teva* solved longstanding claim construction problems, optimistically suggesting that implementation of *Teva* could result in “effective, transparent, and well-reasoned patent claim constructions” and that “patent litigation will become more predictable and understandable.” Again, the methodological split and its contribution to uncertain patent scope are overlooked.

Downplaying or ignoring the Federal Circuit’s split over the proper approach to claim construction is good for patent assertion entities. Patent assertion entities benefit from the uncertain claim scope resulting from the absence of a single approach to claim construction. The longer the Federal Circuit’s split persists, the better for patent assertion entities’ prospects. And the less attention the split receives, the longer it is likely to remain. Unsurprisingly, the patent stakeholders actually focused on the connection between the methodological split, uncertain patent scope, and patent assertion entities are the major technology companies most frequently targeted by patent assertion entities.


   Beyond the mere existence of a split over claim construction approach, the content of claim construction rules also affect the prospects for patent assertion entities. Different approaches to claim construction differ in the degree of predictability and breadth of claim scope they produce. For reasons previously explained, patent assertion entities prefer a claim construction approach that tends to produce less predictable and broader claim scope. The “general meaning” approach to claim construction—where

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86 See Wagner & Petherbridge, *supra* note 1, at 144–145.
89 See Cotropia, *supra* note 37, at 100.
90 See *supra* subsection II.A.2.
claim construction starts with extrinsic sources as to the abstract meaning in the field of invention and only looks to the specification for a clear deviation from this abstract meaning—does exactly that.

Some scholars believe that the general meaning approach results in more predictable claim scope.\footnote{See, e.g., Wagner & Petherbridge, supra note 1, at 144–145.} They assume that skilled people can simply apply their own understanding of the claim term—an understanding that reflects the general understanding in the field—with confidence that the claim construction adopted in subsequent litigation will reflect this understanding.\footnote{See id.} While theoretically sound, this represents an idealized view of actual litigation. The incentives in litigation are likely to result in a battle of experts (or expert texts) each asserting a “general meaning” that is most favorable to its side’s litigation position, regardless of any connection to any actual “general meaning” in the field (to the extent one even exists).\footnote{See Reilly, supra note 34, at 271–277.} Nor are generalist judges well-situated to sort through the ex post, litigation-driven “general meanings” and accurately identify the true “general meaning” in the field.\footnote{See id.}

Anecdotal evidence from those on the ground confirms that scholars are overly optimistic when they assume the “general meaning” approach promotes predictability of claim scope. The FTC surveyed a wide range of stakeholders within the patent system, finding, among other things, that there was widespread concern about uncertain patent scope, especially in the information technology sector. Importantly, though, the FTC noted that “[t]hose who found claim construction manageable emphasized the importance of looking beyond the claims themselves and relying heavily on review of the patent’s description of the invention to sort out claim meaning.”\footnote{FTC REPORT, supra note 59, at 82.} A group of the nation’s leading information technology companies—the industry in which patent notice problems are widely agreed to be most severe—concur: “Decisions that divorce claim terms from the context of the written description entrench claim ambiguity and litigation uncertainty.”\footnote{See id. at 80; Yeh, supra note 22, at 9.}

The patent-focused approach encourages heavy reliance on the specification to understand claim meaning, whereas the “general meaning” approach limits reliance on the specification to explicit definitions or clear disclaimers of claim scope. “From a notice perspective,” the patent-focused approach “works best.”\footnote{Google et al. Lighting Ballast Br., supra note 19, at 25 n.3.} As the FTC explained, when claim construction is primarily driven by the patent itself, “[a] third party seeking to understand a claim’s meaning can view the intrinsic evidence by reading the patent and consulting the file wrapper (containing the prosecution history). The mate-

\footnote{91 See, e.g., Wagner & Petherbridge, supra note 1, at 144–145. \footnote{92 See id.} \footnote{93 See Reilly, supra note 34, at 271–277.} \footnote{94 See id.} \footnote{95 FTC REPORT, supra note 59, at 82.} \footnote{96 See id. at 80; Yeh, supra note 22, at 9.} \footnote{97 Google et al. Lighting Ballast Br., supra note 19, at 25 n.3.} \footnote{98 FTC REPORT, supra note 59, at 102.}
rial is easily identifiable by, and accessible to, third parties” ex ante.\footnote{Id.} By contrast, when claim construction emphasizes the supposed “general meaning” in the technical field, claim meaning depends on external texts and expert testimony identified or developed ex post for purposes of litigation. “A third party therefore cannot know in advance what external evidence will be utilized” because there are a variety of potential external texts or expert witnesses which will support a variety of supposed “general meanings.”\footnote{Id. at 102 (quoting FED. TRADE COMM’N, THE EVOLVING IP MARKETPLACE 64 (2009)); \textit{id.} at 102 n.181 (quoting a stakeholder as saying that “if you start to look at external records, even in biotech, there you can probably find five different people to say five different things”).} Thus, the patent-focused approach better promotes predictability of claim scope, whereas the general meaning approach increases the unpredictability of claim scope upon which patent assertion entities rely.\footnote{See Google et al. \textit{Teva Br.}, supra note 19, at 10–11 (endorsing patent-focused approach and rejecting general meaning approach based on certainty concerns).}

The different claim construction methodologies also produce different claim scope. Specifically, the general meaning approach will tend to produce broader claim scope than the patent-focused approach.\footnote{See Carlson & Dubal, supra note 51 (noting that claims are “overwhelmingly construed broadly” under the general meaning approach, which authors refer to as “heavy presumption of ordinary meaning” standard); Cotropia, supra note 37, at 121–22 (noting that the “heavy presumption,” i.e., general meaning, methodology may give the patentee “the greatest possible breadth of patent protection”).} Even those generally supportive of the general meaning approach acknowledge that it is likely to “yield broader interpretations.”\footnote{Cotropia, supra note 37, at 114 (referring to the “general meaning” approach as “procedural methodology”); see also Retractable Techs., Inc. v. Becton, Dickinson & Co., 659 F.3d 1369, 1371 (Fed. Cir. 2011) (Moore, J., dissenting from the denial of the petition for rehearing en banc) (acknowledging that the “general meaning” approach can produce claim scope broader than a patent-focused approach but arguing that this is a problem of invalidity).} This is because the patent-focused approach limits the context available for claim construction to that found in the patent itself. “The patent’s disclosure sets a ceiling for the claim’s meaning, and thus, the literal scope of exclusivity afforded to the patent.”\footnote{Id. at 114 (citing Phillips v. AWH Corp., 415 F.3d 1303, 1321–22 (Fed. Cir. 2005)).} By contrast, the general meaning approach “moves the claim term’s meaning from the context of the patent to the abstract,” which will naturally expand the potential claim scope.\footnote{See id. at 110.} The specification does not generally limit claim scope under this approach.\footnote{See \textit{Reilly}, supra note 34, at 276–77.} Rather, the only limit on claim scope is the ability to find some expert text, however tangentially relevant, or some paid expert witness to support a supposed “general meaning.”\footnote{Id. at 108.}
Thus, the general meaning approach to claim construction produces unpredictable and broad claim scope, the very conditions in which patent assertion entities thrive.108 Unsurprisingly, in litigation, patent assertion entities often rely on the general meaning approach in formulating claim construction positions. As one practitioner explained,

[when the claim construction phase occurs, the claim construction proposed by plaintiff in such [patent “troll”] cases is typically superficial, often consisting of “no construction required,” “plain and ordinary meaning” or “dictionary definition,” with the goal a construction that results in infringement with some wiggle room to avoid prior art.]109

Two other practitioners concluded that “[p]atent trolls excel[ ] under this [general meaning] standard, with infringement easier to prove, and patent invalidity always an elusive and risky path.”110 Probably for these exact reasons, the most common targets of patent assertion entities—the nation’s leading technology companies—vehemently rejected the general meaning approach and endorsed the patent-focused approach, arguing that “[i]t is improper to ignore the specification in favor of a ‘plain meaning’ analysis divorced from the context of the patent.”111


Even as the patent community is increasingly obsessed with how to combat patent assertion entities, the claim construction case law and scholarship are moving in favor of patent assertion entities’ preferred claim construction methodology: the general meaning approach.

The case law long has been split between the “general meaning” and patent-focused approaches, a split that Professors Wagner and Petherbridge found to have remained fairly consistent after the Federal Circuit’s 2005 Phillips decision, at least through 2007 (the end of their study).112 However, anecdotal reports suggest that in the past few years “claim construction law for now is swinging in the direction” of the “general meaning” approach, with more cases taking this approach than before and the newer Federal Circuit judges favoring it.113 Moreover, although the Supreme Court’s decision in Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc. addressed the standard of appellate review, not methodology, for claim construction, the Court did endorse the district court’s “consult[ing] extrinsic evidence in order to understand . . . the meaning of a term in the relevant art during the relevant

108 See supra subsection I.A.2.
110 Carlson & Dubal, supra note 51 (referring to the “general meaning” approach as “heavy presumption” methodology).
111 Google et al. Teva Br., supra note 19, at 22.
112 See Wagner & Petherbridge, supra note 1, at 134–35, 135 tbl.6.3.
113 Carlson & Dubal, supra note 51.
time period.”\textsuperscript{114} Some scholars have read this as consistent with an approach to claim construction that starts with extrinsic evidence about the meaning of the term in the field and only then checks to see if the intrinsic evidence is inconsistent with this meaning, i.e., an approach similar to the general meaning approach.\textsuperscript{115}

\textit{Teva} could result in greater use of the “general meaning” approach for an additional reason. Under \textit{Teva}, district courts receive deference for findings on subsidiary factual issues underpinning claim construction, such as the general meaning of the term in the technical field or resolution of conflicting expert testimony, but no deference when claim construction is based solely on the intrinsic evidence within the patent document and prosecution history.\textsuperscript{116} This gives district judges incentives to rely heavily on extrinsic evidence and expert testimony—such as by using the general meaning approach, not the patent-focused approach—in order to ensure deferential review from the Federal Circuit.\textsuperscript{117} On the other hand, the incentive \textit{Teva} provides district courts to use the general meaning approach may be counterbalanced by the incentive it provides the Federal Circuit to emphasize greater or exclusive use of the intrinsic record—consistent with the patent-focused approach—so as to avoid having to defer to district court claim constructions.\textsuperscript{118}

Beyond the case law, claim construction scholarship increasingly favors the “general meaning” approach. In the past, the scholarship, like the case law, was divided between the patent-focused and general meaning approaches.\textsuperscript{119} However, recent work from leading scholars endorses, to varying extents, approaches to claim construction more consistent with the general meaning approach than the patent-focused approach. Professors Wagner and Petherbridge explicitly endorse “[a]n approach to patent claim construction that firmly embraces the commonly understood meaning of words and places the burden on the patent applicant to clearly explain any deviations from the ordinary meaning” and reject an “open-ended search for


\textsuperscript{115} See Dennis Crouch, \textit{Giving Deference to the Supreme Court in Teva v. Sandoz}, PATENTLYO (Jan. 21, 2015), http://patentlyo.com/patent/2015/01/deference-supreme-sandoz.html (quoting Professor Rantanen but noting that other commentators disagreed); see also Anderson & Menell, supra note 87, at 198 (arguing that \textit{Teva} “affords [district courts] greater flexibility to use familiar tools for resolving factual disputes—presentation of [extrinsic] evidence and expert testimony”). But cf. Rantanen, supra note 85, at 550 (acknowledging that it is still “business as usual at the Federal Circuit”).

\textsuperscript{116} See \textit{Teva}, 135 S. Ct. at 841.

\textsuperscript{117} See Google et al. \textit{Teva Br.}, supra note 19, at 23.

\textsuperscript{118} See Rantanen, supra note 85, at 550–52 (suggesting that this has been Federal Circuit’s reaction to \textit{Teva}).

\textsuperscript{119} Compare, e.g., Cotropia, supra note 37 (endorsing patent-focused approach), and Kelly Casey Mullally, \textit{Patent Hermeneutics: Form and Substance in Claim Construction}, 39 FLA. L. REV. 353 (2007) (same), with, e.g., Osenga, supra note 39 (endorsing an approach more similar to “general meaning” approach), and Wagner & Petherbridge, supra note 53 (same).
Similarly, Professor Rantanen advocates for a claim construction process where the judge begins by making a factual determination about the meaning of a claim term to a person of skill in the art [using extrinsic evidence] and then considers the intrinsic evidence of the patent to arrive at a legal conclusion as to its meaning in the patent. 121 Professor Crouch believes that “the rule that extrinsic evidence is of secondary importance and perhaps should not be considered absent ambiguity in the intrinsic evidence . . . is contrary to the rule that the interpretation should be based upon the contemporary understanding of a person having ordinary skill in the art.” 122 And Professors Anderson and Menell criticize relying just on the intrinsic evidence and instead endorse an approach that “place[s] greater emphasis on skilled artisans, inventors, patent attorneys, and patent agents in tracing the drafting of patent claim terms and their understanding to skilled artisans in the context of the particular patent.” 123

The recent cases and scholarship favoring the general meaning approach to claim construction seem not to appreciate the beneficial effects this approach has for patent assertion entities. This trend is again inconsistent with the general tide of patent law, which aims to reduce the prevalence and power of patent assertion entities.


The appropriate appellate standard of review for claim construction—the Federal Circuit’s long-standing de novo standard or some more deferential standard—has received extensive attention over the past fifteen years. 124 Despite the volumes of ink spilled, there has been little development of the connection between the standard of review and patent assertion entities. If anything, the ubiquitous contention that more deferential review will increase certainty of patent scope 125 could suggest that deferential review will undermine patent assertion entities.

As I have explained elsewhere, more deferential appellate review of claim construction is unlikely to have a significant impact on certainty of claim scope. 126 Deferential review may improve, to some extent, the ex post

120 Wagner & Petherbridge, supra note 1, at 144.
121 Rantanen, supra note 85, at 555.
124 See supra subsection I.B.2.
125 See supra subsection I.B.2.
126 See generally Reilly, supra note 42.
certainty of claim construction after the district court has issued its claim construction. Even this is unlikely to be significant as long as the methodological split exists because the district judge’s choice of methodology is a question of law subject to de novo review, even if the underlying claim construction is reviewed deferentially. More importantly, deferential appellate review has no impact on the far more important question of ex ante predictability, i.e., whether claim scope can accurately be predicted in advance of litigation. Thus, the likelihood that deferential review of claim construction will improve predictability of claim scope in a way that will affect patent assertion entities is low.

On the other hand, in two ways, deferential review of claim construction is likely to benefit patent assertion entities. First, as discussed above in subsection II.B.2, deferential review incentivizes district judges to place greater reliance on the general meaning approach to claim construction and extrinsic evidence more generally. The result is likely to be greater uncertainty and breadth of claim scope, the exact conditions in which patent assertion entities thrive. Second, the more deferential standard of review provides greater power and discretion to the district judge. Some may see this as a benefit of deferential review, as the Federal Circuit is often seen as too powerful and self-aggrandizing. Similarly, some may believe that deferential review, and therefore less power for the Federal Circuit, will undermine patent assertion entities, since the Federal Circuit is often seen as pro-patentee. However, empirical evidence demonstrates that, at least in recent years, the Federal Circuit used its de novo review power to the detriment of patentees. Professor Cotropia’s study of Federal Circuit claim construction decisions between 2010 and 2013 found that “[l]ower court decisions where the patentee wins are more likely to be subject to a claim construction reversal that prompts a change in the case’s outcome,” whereas “in cases where the patentee loses

127 See also Anderson & Menell, supra note 123, at 75–77 (endorsing deferential review exactly because it will lead to greater emphasis on extrinsic texts and expert witnesses); Rantanen, supra note 85, at 554–55 (hoping that deferential review will lead to this result).

128 See supra subsection II.B.1. This is true unless the incentives the Federal Circuit has to emphasize the intrinsic record, so as to increase its ability to review claim construction de novo under Teva, leads it to resolve the claim construction split in favor of the patent only approach. See supra subsection II.B.1.


130 Id. (describing how Federal Circuit “tends to enhance its own power” and how de novo review of claim construction “allowed the Federal Circuit to assume greater power over a crucial aspect of patent litigation”).

131 Id. at 35 (describing Federal Circuit as “a pro-patent institution”).
below. . . the claim construction affirmance rate is the highest.\textsuperscript{132} These effects were strongest “in cases involving electronic, information technology, or business method patents,”\textsuperscript{133} the very areas in which patent assertion entities are most prevalent. Thus, assuming more deferential review of claim construction results in fewer reversals, patentees, especially patent assertion entities, will benefit, since reversals under de novo review were concentrated in cases where the patentee won below in the technical areas where patent assertion entities are the most active.

This potential result of deferential review is exacerbated by the increasing recognition that judges in certain districts, especially the U.S. District Court for the Eastern District of Texas, seek to attract patent litigation by distorting their decisions in favor of the patentee (who chooses the forum), or “forum selling.”\textsuperscript{134} As a result, twenty-eight percent of 2014 patent cases were filed in the Eastern District of Texas,\textsuperscript{135} as were an astounding forty-four percent of patent cases filed in the first half of 2015.\textsuperscript{136} Patent assertion entities in particular prefer to litigate in the Eastern District of Texas.\textsuperscript{137} To date, the Eastern District’s primary means for attracting patent cases has been pro-patentee procedures.\textsuperscript{138} However, increased deference to district court claim construction decisions makes substantive differences between districts on claim construction more important, as they would be more likely to withstand appellate scrutiny. This will provide even greater incentives for patentees, including patent assertion entities, to file in the districts most favorable to them.\textsuperscript{139}


\textsuperscript{133} \textit{Id.}


\textsuperscript{135} Klerman & Reilly, \textit{supra} note 134, at 8 tbl.1.


\textsuperscript{137} \textit{See} U.S. Gov’t Accountability Office, GAO-13-465, \textit{Intellectual Property: Assessing Factors that Affect Patent Infringement Litigation Could Help Improve Patent Quality} 24 (2013) (finding that patent assertion entities “filed more lawsuits in the Eastern District of Texas than other types of plaintiffs” and that thirty-nine percent of their cases were filed there compared to eight percent of cases filed by other types of plaintiffs).

\textsuperscript{138} \textit{See} Klerman & Reilly, \textit{supra} note 134, at 9.

\textsuperscript{139} \textit{See}, e.g., Brief for Intel Corp. et al. as Amici Curiae in Support of Affirmance at 19, Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831 (2015) (No. 13-854) [hereinafter Intel et al. \textit{Teva} Br.] (suggesting that patent assertion entities are “especially likely to exploit forum-shopping opportunities” created by deferential review of claim construction).
and other forum selling districts, to compete for patentees by offering them even more favorable (likely broader) claim construction decisions.140

Rough empirical evidence suggests that the Eastern District of Texas already does so.141 The leading, or perhaps most extreme, example of the general meaning approach favored by patent assertion entities was *Texas Digital Systems, Inc. v. Telegenix, Inc.*,142 a decision subsequently “renounced”143 (even if not formally overruled) by the en banc Federal Circuit’s 2005 *Phillips* decision.144 The leading example of the patent-focused approach is probably *Vitronics Corp. v. Conceptronic, Inc.*, a decision that was expressly reaffirmed by *Phillips*.145 Unsurprisingly given their relative precedential status, *Phillips* was cited nine times more frequently than *Texas Digital* nationwide from 2006–2013 and *Vitronics* six times more frequently than *Texas Digital*. But in the Eastern District of Texas, *Phillips* was cited only four times more frequently than *Texas Digital* and *Vitronics* only three times more frequently than *Texas Digital*.146 Thus, while the Eastern District cites *Phillips* and *Vitronics* at rates comparable to elsewhere, it cites the patent-assertion-entity-friendly *Texas Digital* general meaning decision far more frequently than normal.147 This is consistent with, though hardly dispositive of, a conclusion that the Eastern District of Texas’s claim construction decisions benefit patent assertion entities, decisions that are more likely to withstand appellate scrutiny under deferential review.

On the other hand, Professors Anderson and Menell found that the Eastern District of Texas does not fare worse on appellate review of claim

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140 Cf. Anderson & Menell, *supra* note 125, at 69–70 (noting an argument that de novo review could control “renegade districts” but rejecting it because the Eastern District of Texas does not have an unusual reversal rate compared to other districts).

141 This is a quick study, not a comprehensive analysis. It shares the problems of any study relying on decisions reported on Westlaw or Lexis. Moreover, it does not account for what purpose the cases were cited or their effects on outcomes; for example, the Eastern District may be citing *Texas Digital* for a basic point of law not renounced in *Phillips*.

142 308 F.3d 1193 (Fed. Cir. 2002); see also Mullally, *supra* note 119, at 354.

143 Mullally, *supra* note 119, at 358.

144 *Phillips* v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

145 *Vitronics* Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed. Cir. 1996); see *Phillips*, 415 F.3d at 1312.

146 *Phillips* was issued, and *Texas Digital* renounced and *Vitronics* reaffirmed, on July 12, 2005. My study started with January 1, 2006, to allow district courts to adjust to *Phillips*. Citations were calculated via Westlaw by entering the citation for each decision; clicking on the “Citing References” function; limiting to cases; limiting to Jan. 1, 2006–Dec. 31, 2013; limiting to district courts; limiting by "hide negative." For each decision, citations were then limited just to “E.D. Tex” and again limited to hide negative. Nationwide, there were 2832 cites to *Phillips*, 1995 cites to *Vitronics*, and 328 cites to *Texas Digital*. In the Eastern District of Texas, there were 437 cites to *Phillips*, 312 cites to *Vitronics*, and 107 cites to *Texas Digital*.

147 According to Lex Machina, 16.7% of claim construction orders from 2006–2013 were from the Eastern District of Texas. Fifteen point four percent of non-negative citations to *Phillips* and 15.6% of non-negative citations to *Vitronics* were from the Eastern District, but 32.6% of non-negative citations to *Texas Digital* were from the Eastern District.
construction than other districts. For that reason, they rejected any concern that deferential review of claim construction was problematic in light of the existence of “renegade” districts like the Eastern District of Texas. While interesting, it is difficult to know how much weight to give to appellate reversal rates in evaluating the Eastern District’s performance, given the existence of significant selection effects regarding the cases that reach final decision and are appealed. More importantly, even if the Eastern District of Texas has not skewed claim construction in a pro-patentee direction in the past—perhaps because of the threat of reversal under de novo review—deferential review after Teva gives it greater opportunity and incentive to do so in the future.

Thus, deferential review of claim construction is unlikely to reduce uncertainty in a way that will affect patent assertion entities. By contrast, it is likely to increase use of the patent-assertion-entity-friendly general meaning approach, as well as increase the power and importance of the district courts most favorable to patent assertion entities. Overall, deferential review of claim construction is good news for patent assertion entities. Unsurprisingly, the nation’s leading technology companies (again, the most popular target of patent assertion entities) bucked conventional wisdom in recent years and argued for retention of the Federal Circuit’s de novo review standard.


Claim construction is undoubtedly moving in favor of more deferential appellate review. Again, this trend is out of step with general concerns about the effect of patent assertion entities on the patent system.

In Teva Pharmaceuticals USA, Inc. v. Sandoz Inc., the Supreme Court rejected the Federal Circuit’s de novo standard of review, holding instead that some measure of deference was appropriate in reviewing district court claim construction decisions. Specifically, the Court held that a district court’s “subsidiary factual findings about [the] extrinsic evidence . . . must be reviewed for clear error on appeal,” though the Federal Circuit should “still review the district court’s ultimate construction of the claim de novo.” On its face, Teva v. Sandoz unquestionably altered the standard of review for claim construction, shifting it towards greater deference to the district courts. Commentators generally have praised the Supreme Court’s adop-

148 Anderson & Menell, supra note 123, at 70.
149 Id. at 69.
150 For example, the Eastern District of Texas grants summary judgment at approximately one fourth the rate of other districts. See Klerman & Reilly, supra note 134, at 10–12, 50. This means that obtaining an appealable final decision in the Eastern District is more likely to require incurring the entire expense and risk of trial. Id.
151 See Google et al. Teva Br., supra note 19; Intel et al. Teva Br., supra note 139; Google et al. Lighting Ballast Br., supra note 19.
153 Rantanen, supra note 85, at 544.
tion of more deferential claim construction review. Some commentators even have criticized the Federal Circuit for not vigorously implementing deferential review post-\textit{Teva} and urged an expansive reading of the deferential review required by \textit{Teva}.

III. LESSONS FROM THE INTERSECTION OF CLAIM CONSTRUCTION AND PATENT ASSERTION ENTITIES

This Part turns from the descriptive to the normative. Part II described the overlooked connection between claim construction and patent assertion entities, as well as how patent assertion entities benefit from problems and trends in claim construction doctrine. This Part addresses what this descriptive account means for the patent system.

A. \textit{If You Care About Patent Assertion Entities, You Should Care About Claim Construction}

A sometimes fierce debate exists within the patent community as to whether patent assertion entities are good, bad, or neutral for the patent system. This Article does not take sides in that debate. Regardless of one’s views of patent assertion entities, it is useful to recognize the connection to claim construction issues and trends.

For those who believe that concerns about patent assertion entities are overblown or that patent assertion entities play a beneficial role in the patent system, this Article will probably be of little import. Hopefully, they will find the descriptive account interesting and recognition of the relationship between claim construction doctrine and patent assertion entities useful. However, they will be undisturbed by the fact that the issues and trends in claim construction help patent assertion entities, though perhaps (as I do) they will find the issues and trends in claim construction problematic in their own right.

On the other hand, for the majority of the patent community concerned (to some extent) about patent assertion entities, this Article should serve as a wake-up call. Problems with claim construction are generally ignored in debates and reforms related to patent assertion entities. If anything, claim construction is treated as a solution, not a cause, of the “patent troll problem.” This Article suggests that claim construction problems contribute to the effectiveness of patent assertion entities. More troubling, claim construction doctrine and commentary is moving in a direction that favors patent assertion entities. If patent assertion entities are as problematic as many in the patent community believe, then it is important to address the underlying problems of claim construction and reconsider the direction in which claim

154 E.g., Anderson & Menell, \textit{supra} note 87; Rantanen, \textit{supra} note 85.
155 E.g., Rantanen, \textit{supra} note 85, at 550–51.
156 See \textit{supra} Section I.A.
157 See Reilly, \textit{supra} note 84; Reilly, \textit{supra} note 42; Reilly, \textit{supra} note 34.
158 See \textit{supra} Section I.C.
construction is moving. Those in the crosshairs of patent assertion entities—the nation’s leading technology companies—seem to have reached this very conclusion.159

This Article also contributes to debates over claim construction. At times, claim construction feels as if it is in a time warp, with the battle lines and arguments drawn in the early 2000s and little changed in the intervening years, despite significant changes in the patent litigation landscape. Claim construction is the one area immune from analysis about how the rise of patent assertion entities over the past decade has changed the patent landscape. Likewise, the dramatic concentration of patent cases in the Eastern District of Texas over the past decade plays little part in claim construction discussions. Commentators praise recent developments in claim construction, like the *Teva* decision, even as they acknowledge that the success of these developments depends on faithful implementation by district judges.160 Whether this will occur is questionable in the current patent litigation landscape, where approaching half of all patent cases are filed in a single district exactly because that district has consistently applied the law in a way to favor patentees, including patent assertion entities.161

Those debating claim construction issues would be well-advised to consider the consequences for patent assertion entities of various approaches to claim construction. Some may believe that trends in claim construction rules, like deferential review and the general meaning approach, are warranted despite (or except for) the positive effect for patent assertion entities. That certainly could be true, though I have previously doubted it.162 Regardless, the consequences for patent assertion entities are a cost of these trends that should be weighed in any cost-benefit analysis of claim construction rules.

This is not to say that claim construction doctrine should be applied differently in cases brought by patent assertion entities or designed in a particular way *solely* to combat patent assertion entities. Rather, I agree with Professor Lemley and Douglas Melamed that “[p]atent trolls alone are not the problem; they are a symptom of larger problems with the patent system.”163 This Article builds on their work. That patent assertion entities

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159 See Google et al. *Lighting Ballast Br.*, *supra* note 19, at 4 (“[T]he root causes of uncertainty in claim construction are vaguely drafted claims and contradictory claim-construction methodologies, not appellate review. Deference would not ameliorate those causes of uncertainty; it would make them worse. Deference would . . . incentivize [district judges] to rely more on the extrinsic evidence presented in any given case, and less on what a patent actually says, in hopes of securing greater deference.”).

160 Anderson & Menell, *supra* note 87, at 197–99. To be fair, in other work, Professors Anderson and Menell recognize (but dismiss) the relationship of deferential review of claim construction and “renegade” districts like the Eastern District of Texas. Anderson & Menell, *supra* note 123, at 69–70.

161 See *supra* subsection II.C.1; see also Anderson, *supra* note 134, at 632; Klerman & Reilly, *supra* note 134, at 3.

162 See Reilly, *supra* note 84; Reilly, *supra* note 42; Reilly, *supra* note 34.

163 Lemley & Melamed, *supra* note 18, at 2121.
thrive under current claim construction doctrine and trends suggests that claim construction is one of those “larger problems” of which patent assertion entities are a “symptom.” As Lemley and Melamed conclude, “[e]xposing the larger problems allows us to contemplate changes in patent law that will actually tackle the underlyingopathologies of the patent system and the abusive conduct they enable.” There is a need to reconsider claim construction rules and trends not simply because they help patent assertion entities but because this effect suggests claim construction doctrine is problematic in its own right.

To be clear, this Article only argues that reversing current trends in claim construction could help address the success and influence of patent assertion entities, not that it is the only way of doing so. It is possible that other patent reforms will successfully combat patent assertion entities, without the need for any changes to the general doctrine or trends in claim construction. For example, perhaps venue reform that limits the ability to file in the Eastern District of Texas will undermine patent assertion entities.

Similarly, Professor Lemley’s suggestion for limiting software functional claiming could be sufficient to address patent assertion entities. Over half of patent assertion entity cases involve software patents, and estimates are that one hundred percent of the software claims asserted by patent assertion entities use functional claim language. To some extent, Professor Lemley’s proposal is consistent with the analysis in this Article. This Article suggests that a persistent split in the Federal Circuit’s claim construction precedent and the continued vitality of the general meaning approach to claim construction are significant factors in the uncertainty and overbreadth of claim scope on which patent assertion entities rely. Professor Lemley would create special rules for interpreting software functional claims that are more consistent with the patent-focused approach than the general meaning approach. Doing so would mitigate the problems created by the persistence of both the claim construction split generally and the general meaning approach specifically, perhaps sufficiently to severely undermine patent assertion entities’ prospects of success.

For several reasons, however, it is still important to recognize the connection between general claim construction problems and patent assertion entities. First, approximately forty percent of patent assertion entity cases do not involve functional software claims and would be unaffected by Professor

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164 Id.
165 Id.
166 See Anderson & Menell, supra note 123, at 70 (arguing that venue is a better tool “to address concerns about districts seeking to attract patent cases” than de novo review of claim construction).
167 Bessen et al., supra note 26, at 29 (finding that sixty-two percent of patents asserted in patent assertion entity cases were software patents).
168 Lemley, supra note 33, at 920 n.65.
169 See supra Sections II.A–B.
Lemley’s proposal.170 Second, although the en banc Federal Circuit recently expanded the circumstances in which claims will be deemed so-called “means-plus-function” claims that are limited to the corresponding structure disclosed in the specification,171 Professor Lemley’s broader proposal to limit all functional claims to the means for performing the function disclosed in the specification has not been adopted. Third, even if Professor Lemley’s proposal was adopted, the line between functional and non-functional claims is murky. Skilled claim drafters are likely to find creative ways to write claims that are the equivalent of functional claims while avoiding the “functional” label and the special claim construction rules that would come with it.

B. Claim Construction Problems Undermine Other Efforts to Combat Patent Assertion Entities

To this point, I have focused on how the problems and trends in claim construction directly benefit patent assertion entities. But claim construction doctrine is relevant to the debate over patent assertion entities for another, indirect reason. The problems and trends in claim construction undermine the effectiveness of many of the leading proposals to combat patent assertion entities.

Most proposals to combat patent assertion entities are motivated by the belief that patent assertion entities bring weak claims and that mechanisms are needed to deter or weed out these weak claims. Proposals abound, including heightened pleading requirements, fee shifting, and Rule 11 sanctions.172 These proposals generally require a determination that the claim lacked merit when brought. This is obviously true of heightened pleading requirements. It is also true of Rule 11 sanctions, which require the contentions in the complaint to have factual and legal support at the time the attorney signs and files the complaint.173 Likewise, proposals that would require the non-prevailing party to pay the attorneys’ fees of the prevailing party would excuse fee shifting if “the position and conduct of the nonprevailing party or parties were reasonably justified in law and fact,” or something significantly equivalent.174

However, under the current state of claim construction, requirements like “reasonably justified” and “plausible” are very low thresholds for the patentee to pass. An issued patent benefits from the statutory presumption of

170 Bessen et al., supra note 26, at 29.
171 Williamson v. Citrix Online, LLC, 792 F.3d 1339 (Fed. Cir. 2015) (en banc in relevant part).
validity, which likely is sufficient for a plaintiff to be “reasonably justified” or “plausible” in believing the patent is not invalid. Claim construction is often decisive or determinative as to the infringement question.\(^{175}\) In light of the issues with claim construction discussed above, how difficult is it really for a patentee to identify a “reasonably justified” or “plausible” claim construction (and therefore infringement) position?\(^{176}\) The patentee has two equally valid claim construction methodologies from which to choose, methodologies that result in differing claim scope. As a result of the continued vitality of the general meaning approach, the patentee need only be able to find a dictionary, scientific text, or paid expert willing to support its claim construction position in order for it to be “reasonably justified” and “plausible.”

Due to the uncertainty and breadth of potential claim scope under current claim construction doctrine, the patentee will fairly easily be able to state a plausible, good faith claim at the time of filing. Thus, efforts to address the patent assertion entity “problem” that rely on identifying claims that lack merit at the time of filing may prove ineffective.\(^{177}\)

**CONCLUSION**

For too long, the vigorous debates over patent assertion entities and claim construction have operated independent of each other. Current problems and trends in claim construction have important consequences for debates over patent assertion entities, as they tend to help the litigation position of patent assertion entities. Those concerned about patent assertion entities would be well-advised to reconsider the direction that claim construction is moving. Those concerned about claim construction would be well-advised to consider the consequences of various claim construction rules for patent assertion entities. This Article contributes to both the debates over patent assertion entities and the debates over claim construction by recognizing the important but overlooked links between claim construction and patent assertion entities.

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\(^{175}\) See supra subsection I.B.1.

\(^{176}\) See Rogers & Jeon, supra note 172, at 319 (noting that “any independent, good-faith construction” and any construction that is “not frivolous” would bar Rule 11 sanctions). But see Taurus IP, LLC v. DaimlerChrysler Corp., 726 F.3d 1306, 1327 (Fed. Cir. 2013) (finding case exceptional for purposes of fee shifting because “the written description provides no support for Taurus’s unreasonably broad construction”).

\(^{177}\) Cf. Shubha Ghosh, *Fee Shifting as Patent Policy Lever: How to Ensure Sufficient Torque*, PATENTLYO (May 19, 2015), http://patentlyo.com/patent/2015/05/fee-shifting-policy-sufficient.html (suggesting that fee shifting may only be effective if mandatory, not subject to factors like a party’s litigation position).