LUCENT V. GATEWAY: PUTTING THE "REASONABLE" BACK INTO REASONABLE ROYALTIES

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In a decision eagerly anticipated by the patent community, the Federal Circuit in Lucent v. Gateway vacated the jury award of \$358 million and closely scrutinized the district court's application of the hypothetical negotiations approach used to determine reasonable royalties. The court analyzed the sufficiency of the past licenses presented and took an active role in excluding unreliable expert testimony. This approach deviated from historic practice and represented the newest effort by the court to prevent excessively large jury awards. Although not offering a bright-line holding, the decision portended a shift in the court's patent damages jurisprudence. The jury award, if not vacated, would have served as a prime example for future plaintiffs of another excessively large patent damages award and continued to allow non-practicing entities to thrive. Post-Lucent cases followed the trend set forth in Lucent, where the Federal Circuit similarly scrutinized the evidence presented and acted as a gatekeeper in excluding questionable evidence.

Part I of this Note traces the historic development of patent damages up to the decision in *Lucent v. Gateway* and discusses how the Federal Circuit has tried to prevent excessively large patent damage awards. Part II summarizes the decision in *Lucent v. Gateway* and the decisions of post-*Lucent* cases. This Part also examines the current state of the law regarding past licenses and expert testimony. Part III argues that the Federal Circuit has taken the right approach, and further urges judges to take on a greater role in acting as

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^{1.} Lucent Techs. Inc. v. Gateway, Inc., 580 F.3d 1301, 1308 (Fed. Cir. 2009).

^{2.} See id. at 1325-39.

^{3.} Eric Bensen, Bensen on Lucent Techs., Inc. v. Gateway, Inc., 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sep. 11, 2009), and its Impact on Patent Damages Law, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

^{4.} See infra Section II.C.

gatekeepers. This Note focuses solely on the issues related to the Federal Circuit, which has exclusive appellate jurisdiction over all cases arising under the patent laws.⁵

I. HISTORICAL BACKGROUND

A. ORIGIN OF PATENT DAMAGES

The division between law and equity shaped the earliest period of patent damages.⁶ Early equity courts had only injunctive power, which gave judges the ability to order an equitable accounting of a patent infringer's illicit profits.⁷ This meant that, at that time, patent owners could not recover profits in an action at law or damages in equity.⁸

The 1870 Patent Act partially fixed this problem by allowing the recovery of damages in equity. However, courts soon faced difficulties in measuring damages and profits. The main issue was finding an appropriate measure of damages when the patent owner could neither prove lost profits nor an established royalty rate. In response, the courts established the reasonable royalty approach, which was codified in the 1922 and 1946 Patent Acts.

A reasonable royalty is a judicially defined amount that reflects what a willing patent owner and a willing user would have hypothetically negotiated, assuming that the patent claims are valid and infringed.¹³ The purpose of the royalty is not to punish the infringer, but to make the patent owner whole.¹⁴ Courts must determine how much money the patent owner would have made if there was no infringement.¹⁵ Patent owners are compensated with a reasonable royalty even if they cannot prove lost profits or an established royalty.¹⁶ The Patent Act of 1952, later codified as 35 U.S.C. § 284, set the

^{5. 28} U.S.C. § 1295(a) (2006).

^{6.} Donald S. Chisum, Treatise on the Law of Patentability, Validity, and Infringement \S 20.02 (2001).

^{7.} *Id*.

^{8.} Id.

^{9.} *Id.* § 20.02[1][d].

^{10.} *Id*.

^{11.} Id.

^{12.} Id. § 20.02[2].

^{13.} *Id*.

^{14.} See CHISUM, supra note 6, § 20.03[4][c][i].

^{15.} Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964).

^{16.} Hayhurst v. Rosen, 1992 U.S. Dist. LEXIS 7312, at *33 (E.D.N.Y. 1992) ("Reasonable royalty as a measure of recovery is intended to provide a just recovery to persons who for evidentiary or other reasons cannot prove lost profits or an established royalty."); see Mark Lemley, The Boundaries of Patent Law: Distinguishing Lost Profits from

basis for modern patent damages jurisprudence.¹⁷ Under § 284, the court "shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty."¹⁸

B. EVOLUTION OF THE HYPOTHETICAL NEGOTIATION APPROACH

Courts use several methods for calculating a reasonable royalty. ¹⁹ An analytical method focuses on the infringer's profit projections for the infringing product. ²⁰ A more common approach, the hypothetical negotiation or "willing licensor-willing licensee" approach, attempts to determine what the parties would have agreed upon had they successfully negotiated a licensing agreement prior to infringement. ²¹ In the landmark case of *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, ²² the court identified fifteen pertinent factors for determining a reasonable royalty. ²³ These factors were drawn

Reasonable Royalties, 51 WM & MARY L. REV. 655, 657 (2009) (discussing how lost profits is preferred over reasonable royalties as a measure of damages because lost profits fits within the traditional conception of patent protection, which is to give patent owners a means of excluding competitors from selling the patented product).

- 17. See CHISUM, supra note 6, § 20.03.
- 18. 35 U.S.C. § 284(a) (2006).
- 19. Lucent Techs. Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009).
- 20. Id.
- 21. Id.
- 22. Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970).
- 23. The factors are:
 - 1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
 - 2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
 - 3. The nature and scope of the license [i.e. exclusivity, restrictiveness]
 - 4. The licensor's established policy and marketing program
 - 5. The commercial relationship between the licensor and licensee
 - 6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
 - 7. The duration of the patent and the term of the license.
 - 8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
 - 9. The utility and advantages of the patent property over the old modes or devices
 - 10. The nature of the patented invention
 - 11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
 - 12. The portion of the profit or of the selling price that may be customary in the particular business ... to allow for the use of the invention or analogous inventions.

from a series of leading cases²⁴ and have been consistently used by the Federal Circuit to determine reasonable royalties in patent infringement cases.25

However, Georgia-Pacific may lack a historical basis.²⁶ The hypothetical negotiation approach essentially originated from Georgia-Pacific, with modern cases following suit.27 Early courts only provided a general statement of approach, rather than a specific analytical framework requiring particular types of evidence. Before Georgia-Pacific and the establishment of the Federal Circuit, the Supreme Court ruled that, in the absence of an established royalty, the courts can resort to "general evidence" to approximate a reasonable royalty.²⁸ General evidence could be anything related to the nature of the invention, its utility and advantages, and the extent of use involved.²⁹

The Supreme Court's ambiguity failed to give definite guidelines as circuit courts differed in their views. For example, the Sixth Circuit viewed reasonable royalties as an approximation of the market value of a license under the patent-in-suit.³⁰ The Sixth Circuit looked not at what the parties would have agreed to had there been a hypothetical negotiation, but rather at what reasonable parties would have agreed to based on the market at the time.³¹ The Ninth Circuit used a slightly different course that closely

Id. at 1120.

^{13.} The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, manufacturing process, business risks, or significant features or improvements added by the infringer.

^{14.} The opinion testimony of qualified experts.

^{15.} The amount that a licensor ... and a licensee ... would have agreed upon (at the time the infringement began) if both had been reasonably trying to reach an agreement

^{25.} The Federal Circuit has cited the district court opinion in Georgia-Pacific forty-two times. Westlaw search, CTAF database, "318 f.supp. 1116," performed Dec. 10, 2009.

^{26.} See Bensen, supra note 3 ("What is frequently overlooked, however, is that Georgia-Pacific has little historical basis."); see CHISUM, supra note 6 (discussing generally the historical basis of reasonable royalties).

^{27.} See, e.g., ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860 (Fed. Cir. 2010); see also Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1309 (Fed. Cir. 2010).

^{28.} E.g., Dowagiac Mfg. Co. v. Minn. Moline Plow Co., 235 U.S. 641, 648 (1915); Suffolk Co. v. Hayden, 70 U.S. 315, 320 (1866).

^{29.} Suffolk, 70 U.S. at 320.

^{30.} E.g., Horvath v. McCord Radiator & Mfg. Co., 100 F.2d 326, 335 (6th Cir. 1938); U.S. Frumentum Co. v. Lauhoff, 216 F. 610, 614-18 (6th Cir. 1914).

^{31.} Horvath, 100 F.2d at 335; U.S. Frumentum, 216 F. 610 at 614-18.

resembled the modern hypothetical negotiation approach.³² It focused primarily on what the parties would have agreed upon if both were reasonably trying to reach an agreement, while accounting for secondary factors.³³ Thus, prior to *Georgia-Pacific*, a market based reasonableness standard appeared to be the norm. It was not until *Georgia-Pacific* that patent damages jurisprudence began to change.

In *Georgia-Pacific*, the New York District Court rejected past approaches offered by both parties.³⁴ Instead, the court created a list of fifteen "evidence facts" relevant to determining the amount of a reasonable royalty³⁵ and proceeded to focus on a few of the most relevant factors based on the evidence presented.³⁶ Worried about speculative evidence and guesswork, the court scrutinized the evidence presented and derived a reasonable royalty rate based on a close factual analysis of the total record.³⁷

In essence, *Georgia-Pacific*'s hypothetical, individually-negotiated approach complicated reasonable royalty determinations by adding many factors into the mix.³⁸ Some factors are notably subjective or possibly irrelevant.³⁹ For example, the policies that the patentee had against licensing (factor four) or the relationship between the parties (factor five) may only be marginally relevant to the patent-in-suit.⁴⁰ These factors would rarely affect the market value for the patent.⁴¹ Still, these factors can give experts great power to justify extreme positions with less pertinent factors.⁴² They can argue that a high royalty is warranted merely because the patentee would have never voluntarily granted a license.⁴³ The result is that experts vary widely in their

^{32.} Faulkner v. Gibbs, 199 F.2d 635, 639 (9th Cir. 1952).

^{33 11}

^{34.} Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1118–1120 (S.D.N.Y. 1970).

^{35.} Id. at 1120.

^{36.} Id. at 1143.

^{37.} Id. at 1132.

^{38.} Bensen, supra note 3.

^{39.} Id.

^{40.} Id.

^{41.} Id.

^{42.} Id.; Daralyn J. Durie & Mark A. Lemley, Intellectual Property Remedies: A Structured Approach to Calculating Reasonable Royalties, 14 Lewis & Clark L. Rev. 627, 628–29 (2010) (discussing how some combination of the Georgia-Pacific factors can support any number an expert may come up with); see also William Choi & Roy Weinstein, An Analytical Solution to Reasonable Royalty Rate Calculations, 41 IDEA 49, 51 (2001) ("[L]icensing experts run down the list and identify some factors that support 'high' royalty rates, while others identify those factors that support 'low' royalty rates, whichever seems to benefit them most.").

^{43.} See Bensen, supra note 3.

estimations of reasonable royalties, which juries tend to address by splitting the difference.⁴⁴ This, in turn, causes experts to become even more extreme in their opinions.⁴⁵ Furthermore, court opinions generally do not discuss how the Georgia-Pacific factors are properly applied in various factual settings because juries determine the value for reasonable royalties.46 Thus, Georgia-Pacific has been followed and applied for over three decades, but the specific body of law for the approach has not been well-developed and provides courts with little guidance in determining royalty awards.⁴⁷

RISE OF NON-PRACTICING ENTITIES⁴⁸

In the last decade, the uncertainty in the reasonable royalty standard has been exploited by a new participant in the patent marketplace, the so-called Non-Practicing Entities (NPEs) or patent trolls. 49 NPEs are not originators or users of patents.⁵⁰ Instead, they buy patents from inventors, often individuals or small businesses, and wait for others to infringe their patents.⁵¹ They selectively acquire patents (often in computers, electronics, business methods, or software fields) that are likely to lead to successful litigation outcomes and high licensing fees.⁵² Leanly staffed, NPEs employ mostly attorneys and only a few engineers who examine prior art.⁵³ After identifying a potential infringing use, NPEs file a patent infringement suit against the accused infringer.⁵⁴ Because it costs millions of dollars to defend against a

^{44.} Id.; see also Durie, supra note 42, at 629 (discussing how plaintiffs have an incentive to "shoot for the moon" as long as juries have virtual carte blanche to pick a damages number between what the experts come up with).

^{45.} See Bensen, supra note 3; see also Durie, supra note 42, at 629.

^{46.} See Bensen, supra note 3.

^{47.} Id.

^{48.} While this Note appears to suggest that NPEs are the villains in this story, this is not entirely true. NPEs may actually "play an important role in the innovation economy by acting as intermediaries between promising independent inventors and users of technology." Sannu K. Shrestha, Trolls or Market-makers? An Empirical Analysis of Nonpracticing Entities, 110 COLUM. L. REV. 114, 118 (2010). The Federal Circuit should prevent excessive compensation such that even NPEs are accurately compensated.

^{49.} See COAL. FOR PATENT FAIRNESS, CLARIFICATION OF THE "REASONABLE ROYALTY" STANDARD IS ESSENTIAL TO UNLEASH INNOVATION AND PROMOTE ECONOMIC GROWTH 1, available at http://www.patentfairness.org/pdf/whitepapers/Damages_

^{50.} Mark Liang, The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities, 19 TEX. INTELL. PROP. L.J. 29, 32-33 (2010).

^{51.} *Id*.

^{52.} Id. at 33.

^{53.} Id.

^{54.} Id. at 34.

patent litigation suit (in part due to uncertain patent damage standards), most infringers are incentivized to settle or agree to a licensing agreement.⁵⁵ The lucrative NPE business model is to acquire, detect, sue, license, and profit.⁵⁶

The negative impact of NPEs on patent damage awards has increased considerably in recent years.⁵⁷ From 1995 to 2001, the median damages award for NPEs was only about \$5 million, which was about the same as for practicing entities.⁵⁸ The median award is now \$12 million for NPEs, but only \$3.4 million for practicing entities.⁵⁹ In addition, in the past seven years, the numbers of defendants sued for patent infringement has nearly doubled (from 5,000 in 2000 to 9,000 in 2007).⁶⁰

The rise of NPEs has been accompanied by an increase in the number of jury trials and an increase in reasonable royalty awards. In the 1980s, juries decided only 14 percent of cases with patent damages awards; in the 1990s, juries decided 24 percent of cases. ⁶¹ In the past decade, juries decided 51 percent of cases. ⁶² It is no surprise that NPEs prefer juries, where plaintiff success rates are much higher compared to bench trials. ⁶³ In addition, NPEs cannot claim lost profits as a measure of damages. ⁶⁴ They do not provide products or services, so they have no established royalty rates and no profits to lose. ⁶⁵ As a result, NPEs must sue for reasonable royalties, leading to an increase in the use of this standard. A recent study showed that reasonable royalties have been the predominant measure of patent damages awards. ⁶⁶ Thus, jury trials and reasonable royalty awards have both risen alongside NPEs.

^{55.} Id.

^{56.} Id. at 35.

^{57.} Aron Levko, Chris Barry, Vincent Torres & Robert Marvin, *Patent Litigation Trends And The Increasing Impact Of Nonpracticing Entities*, PRICEWATERHOUSECOOPERS, August 2009, *available at* http://www.pwc.com/us/en/forensic-services/publications/assets/2009-patent-litigation-study.pdf.

^{58.} *Id.* at 6–7.

^{59.} Levko, *supra* note 57, at 7; *see* Liang, *supra* note 50, at 35–36 (discussing how NPEs initiated less than 100 cases before 2000 but initiated over 450 cases in 2008 and 2009 alone).

^{60.} COAL. FOR PATENT FAIRNESS, supra note 49, at 1.

^{61.} Levko, supra note 57, at 8.

^{62.} Id.

^{63.} Id. at 9.

^{64.} Id. at 11.

^{65.} Id. at 11-12.

^{66.} *Id.* at 11; Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *47 (Fed. Cir. Jan. 4, 2011) ("A reasonable royalty is the predominant measure of damages in patent infringement cases.") (citation omitted); *see* Durie, *supra* note 42, at 634 (discussing how roughly 90 percent of the damage awards were solely reasonable royalty awards).

D. PATENT REFORM ATTEMPTS PRIOR TO LUCENT V. GATEWAY

The fifty-year-old Patent Act was designed for an era of more conventional patent litigation in which a patent owner manufactured his own invention. The statute was also designed for an era of less complex products, "not for today's world of products made up of thousands of elements, many of which could be claimed to implicate a dozen or more patents." Faced with uncertain patent damage standards and the rise of NPEs, Congress attempted to amend patent laws over the last decade, most notably through a number of Patent Reform Acts introduced from 2006 to 2010. These Patent Reform Acts, though none have become law, would have limited venue in patent suits, expanded the prior use defense, increased the difficulty of proving willfulness, and created stricter rules regarding the criteria for measuring damages. Congress responded to the trend of courts affirming extremely high royalty awards and attempted to remedy the situation through legislation. However, Congress has failed to pass any of

^{67.} COAL. FOR PATENT FAIRNESS, supra note 49, at 4.

^{68.} Id.

^{69.} S. 3818, 109th Cong. (2006); H.R. 1908, 110th Cong. (2007); S. 3600, 110th Cong. (2008); S. 515, 111th Cong. (2009).

^{70.} E.g., H.R. 1908, 110th Cong. § 5 (2007).

^{71.} See e.g., i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 854 (Fed. Cir. 2010) (affirming a decision where the jury awarded \$200 million award); Levko, supra note 57, at 7.

^{72.} An example of one of the proposed changes is H.R. 1908, 110th Cong. § 5 (2007), which would have added a Section 271(b)(1) to Title 35, as follows:

⁽b) REASONABLE ROYALTY.

⁽¹⁾ IN GENERAL. An award pursuant to subsection (a) that is based upon a reasonable royalty shall be determined in accordance with this subsection. Based on the facts of the case, the court shall determine whether paragraph (2), (3), or (4) will be used by the court or the jury in calculating a reasonable royalty. The court shall identify the factors that are relevant to the determination of a reasonable royalty under the applicable paragraph, and the court or jury, as the case may be, shall consider only those factors in making the determination.

⁽²⁾ RELATIONSHIP OF DAMAGES TO CONTRIBUTIONS OVER PRIOR ART. Upon a showing to the satisfaction of the court that a reasonable royalty should be based on a portion of the value of the infringing product or process, the court shall conduct an analysis to ensure that a reasonable royalty under subsection (a) is applied only to that economic value properly attributable to the patent's specific contribution over the prior art. The court shall exclude from the analysis the economic value properly attributable to the prior art, and other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process.

the prior Patent Reform Acts. Consequently, the issue of high damage awards remained unresolved, creating a climate of intense anticipation for the Federal Circuit's *Lucent* decision.⁷³

In the past several years, the Supreme Court has also attempted to prevent excessively large patent awards. In KSR v. Teleflex, the Court made it easier to find an invention unpatentably obvious. ⁷⁴ In eBay v. MercExchange, the Court made it more difficult to obtain permanent injunctions to stop ongoing adjudged infringement. ⁷⁵ Furthermore, the Court created limitations on damages through changes in other areas, such as the exclusionary power of patents in antitrust claims, ⁷⁶ standing of licensees to challenge validity, ⁷⁷ and the exhaustion doctrine. ⁷⁸ These cases make it easier for defendants to win patent infringement cases, and may indirectly lead to reduced patent damage awards as a result.

E. DEFERENCE BY THE FEDERAL CIRCUIT PRIOR TO LUCENT V. GATEWAY

Prior to Lucent, the Federal Circuit greatly deferred to the rulings of district courts. 79 A 2010 study showed that the Federal Circuit affirmed 72

- (3) ENTIRE MARKET VALUE. Upon a showing to the satisfaction of the court that the patent's specific contribution over the prior art is the predominant basis for market demand for an infringing product or process, damages may be based upon the entire market value of the products or processes involved that satisfy that demand.
- (4) OTHER FACTORS. If neither paragraph (2) or (3) is appropriate for determining a reason able royalty, the court may consider, or direct the jury to consider, the terms of any nonexclusive marketplace licensing of the invention, where appropriate, as well as any other relevant factors under applicable law.
- (5) COMBINATION INVENTIONS. For purposes of paragraphs (2) and (3), in the case of a combination invention the elements of which are present individually in the prior art, the patentee may show that the contribution over the prior art may include the value of the additional function resulting from the combination, as well as the enhanced value, if any, of some or all of the prior art elements resulting from the combination.
- 73. See Bensen, supra note 3.
- 74. KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 415-22 (2007).
- 75. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 390-94 (2006).
- 76. Illinois Tool Works Inc. v. Independent Ink, Inc., 547 U.S. 28, 40-42 (2006).
- 77. MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 137 (2007).
- 78. Quanta Computer, Inc. v. LG Elect., Inc., 553 U.S. 617, 631 (2008).
- 79. See, e.g., Endress + Hauser, Inc. v. Hawk Measurement Sys. Pty. Ltd., 122 F.3d 1040, 1043 (Fed. Cir. 1997) ("There is more than sufficient evidence in the record to sustain the trial judge's exercise of the broad discretion under which ... contested damages

percent of reasonable royalty awards since 2000, and "barely more than 1% of the damage awards were rejected or modified as a matter of law." The court emphasized that "the methodology of assessing and computing damages under 35 U.S.C. § 284 is within the sound discretion of the district court." In *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, the Federal Circuit stated that "decisions underlying a damage theory are discretionary with the court, such as, the choice of an accounting method of determining profit margin . . . or the methodology for arriving at a reasonable royalty. Furthermore, the Federal Circuit had consistently upheld experts' use of hypothetical negotiations and the *Georgia-Pacific* factors for estimating a reasonable royalty. In sum, prior to *Lucent*, the Federal Circuit did not scrutinize damage awards in detail and generally deferred to the district court.

II. LUCENT V. GATEWAY

The Federal Circuit decided *Lucent v. Gateway* in the context of the widespread use of the *Georgia-Pacific* factors, rise of NPEs, and mounting Congressional pressure for patent reform. ⁸⁴ In *Lucent*, Lucent sued Gateway, Inc. et al. for patent infringement over the Day Patent. ⁸⁵ The Day Patent was directed to a method of entering information into fields on a computer screen without a keyboard. Microsoft (who intervened in the case)

determinations are made."); Minco, Inc. v. Combustion Engineering, Inc., 95 F.3d 1109, 1118 (Fed. Cir. 1996) ("Because fashioning an adequate damages award depends on the unique economic circumstances of each case, the trial court has discretion to make important subsidiary determinations in the damages trial, such as choosing a methodology to calculate damages."); Wang Labs., Inc. v. Toshiba Corp., 993 F.2d 858, 869 (Fed. Cir. 1993) ("In reviewing the district court's award, we must determine if the court abused its discretion in its methodology for determining a reasonable royalty rate."); State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1576–77 (Fed. Cir. 1989) ("Deciding how much to award as damages is not an exact science, and the methodology of assessing and computing damages is committed to the sound discretion of the district court."); Nickson Indus., Inc. v. Rol Mfg. Co. 847 F.2d 795, 798 (Fed. Cir. 1988); Seattle Box Co., Inc. v. Indus. Crating & Packing Inc., 756 F.2d 1574, 1581 (Fed. Cir. 1985) (discussing how a district court may choose at its discretion the methodology with which to assess and compute damages and noting that the choice of method will be reviewed on an abuse of discretion basis provided that the award is adequate compensation and not less than a reasonable royalty).

- 80. Durie, supra note 42, at 634.
- 81. Fromson v. W. Litho Plate & Supply Co., 853 F.2d 1568, 1576 (Fed. Cir. 1988).
- 82. Smithkline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1164 (Fed. Cir. 1991) (internal citations omitted).
- 83. See, e.g., Micro Chem., Inc. v. Lextron, Inc., 317 F.3d 1387, 1393 (Fed. Cir. 2003); Interactive Pictures Corp. v. Infinite Pictures, Inc., 274 F.3d 1371, 1384 (Fed. Cir. 2001).
 - 84. See supra Sections I.B-I.D.
 - 85. Lucent Techs. Inc. v. Gateway, Inc., 580 F.3d 1301, 1308 (Fed. Cir. 2009).

incorporated the Day Patent technology into their Microsoft Outlook software, using the new technology to pick dates within the Outlook calendar.⁸⁶

At trial, Lucent asked for \$561.9 million, which was estimated to be 8 percent of the defendants' sales revenue from the allegedly infringing software products. The jury found for a lump sum theory and asked for \$6.5 million. The jury found for Lucent and awarded \$358 million. Gateway moved for a new trial and judgment as a matter of law, challenging the jury's damage award. The district court denied both motions, finding that there was substantial evidence in the record to support the jury's determination. Gateway then appealed to the Federal Circuit, where the Federal Circuit vacated the jury award and remanded for a new trial on damages.

A. PAST LICENSES IN *LUCENT*⁹³

Prior to *Lucent*, the Federal Circuit deferred to the judgment of the district court for damage calculations. ⁹⁴ In *Lucent*, the court changed course, conducted an unusually close analysis of all evidence offered in connection with the *Georgia-Pacific* factors, and ruled that the verdict was unsupported by the evidence. ⁹⁵

The Federal Circuit focused its analysis on *Georgia-Pacific* factor two (royalties of other comparable past patent licenses). Lucent had relied on eight other licenses, but the court rejected four of them because they included running royalties instead of lump sum payments. The other four lump sum licenses were merely characterized (in Lucent's brief) as covering "PC-related patents." The court ruled that these licenses were not comparable because a personal computer kinship alone did not impart

^{86.} Id. at 1317.

^{87.} Id. at 1323.

^{88.} Id.

^{89.} Id. at 1309.

^{90.} Id.

^{91.} Id.

^{92.} Id. at 1340.

^{93.} This Note does not specifically address the entire market value rule ("EMVR"), which the Federal Circuit addressed in *Lucent*. The EMVR is just a running royalty damages award with a preset royalty base and a lower royalty rate.

^{94.} See supra Section I.E.

^{95.} Lucent, 580 F.3d at 1325-36.

^{96.} Id. at 1325-32.

^{97.} Id. at 1328.

^{98.} Id.

enough comparability. ⁹⁹ Lucent's expert presented no evidence showing how the broadly defined "PC-related patents" related to the date-picking Day Patent. ¹⁰⁰ He never explained whether the "PC-related patents" were a small or large component of the featured licensed product. ¹⁰¹ He never explained what those patents covered or how valuable or essential they were. ¹⁰² He never explained what products were covered by the licenses or how the various royalty rates were calculated. ¹⁰³ Furthermore, the four lump sum licenses were in the amounts of \$80, \$93, \$100, and \$290 million, while the jury award was \$358 million. ¹⁰⁴ Taken together, the Federal Circuit found that these considerations necessitated a finding that the jury award had no evidentiary basis. ¹⁰⁵ Thus, Lucent failed this *Georgia-Pacific* factor two analysis—the Federal Circuit could not affirm a jury award that was three to four times the average amount of the lump sum agreements in evidence. ¹⁰⁶

B. EXPERT TESTIMONY IN LUCENT

The Federal Circuit also closely examined the expert testimony presented in court. Lucent presented a licensing expert who testified that reasonable royalties can be determined by looking at "what the value of each use of the patent might be and then speculating as to the extent of the future use." However, Lucent submitted no documentation or testimony showing what the parties expected the Day Patent's future use would be. Without this evidence, the court ruled that the jury lacked sufficient evidence to reasonably conclude what Microsoft and Lucent would have estimated the value of each patent to be at the time of the negotiation. 109

The Federal Circuit also identified a flaw in the approach adopted by Lucent's licensing expert. Lucent's expert opined that a 1 percent royalty on the selling price of a computer loaded with Outlook would be a reasonable royalty. Microsoft filed a motion in limine to exclude such

^{99.} Id.

^{100.} Id.

^{101.} Id. at 1330.

^{102.} Id. at 1331.

^{103.} Id.

^{104.} Id. at 1332.

^{105.} Id.

^{106.} *Id.*

^{107.} Id. at 1327.

^{108.} Id.

^{109.} Id.

^{110.} Id. at 1338.

^{111.} Id.

testimony, which the judge granted.¹¹² In response, Lucent's expert changed his opinion and stated that an 8 percent royalty on the selling price of the Outlook software itself would be reasonable, conveniently resulting in the same overall damages number as the 1 percent reasonable royalty presented earlier.¹¹³ The Federal Circuit saw through this ploy to overcome the original exclusion and rejected the expert's testimony (without any mention of *Daubert*).¹¹⁴ Thus, the Federal Circuit demonstrated that they will closely scrutinize expert testimony to ensure that experts present solid evidence grounded in fact.

C. POST-LUCENT CASES

In the wake of Lucent, the Federal Circuit has taken a similar approach by closely examining evidence in a number of other patent cases involving disputes over royalties.

1. ResQNet v. Lansa

In *ResQNet*, ResQNet sued Lansa for infringing on patents related to screen recognition and terminal emulation processes.¹¹⁵ The technology involved downloading information from a remote mainframe computer onto a local personal computer.¹¹⁶ The jury awarded damages of \$506,305 based on a hypothetical royalty of 12.5 percent plus prejudgment interest.¹¹⁷ On appeal, the Federal Circuit vacated and remanded the damages award because the district court's award relied on speculative evidence and because the district court failed to carefully tie proof of damages to the claimed invention's footprint in the market place.¹¹⁸

ResQNet presented seven licenses, all of which were problematic for the same reasons as in *Lucent*. ¹¹⁹ Five of the licenses furnished software products, source code, or services (like training, maintenance, or marketing) to various companies. ¹²⁰ The problem was that "none of these licenses even mentioned the patents in suit or showed any other discernible link to the claimed

^{112.} *Id.*

^{113.} *Id*.

^{114.} *Id. Daubert* gives judges the ability to act as a gatekeeper and sets out the framework for determining whether expert testimony is properly admitted under Rule 702 of the Federal Rules of Evidence. *See infra* Section III.B.

^{115.} ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 863 (Fed. Cir. 2010).

^{116.} Id.

^{117.} Id.

^{118.} Id. at 873.

^{119.} Id. at 869.

^{120.} Id. at 870.

technology."¹²¹ Considering how these five licenses also had royalty rates ranging from 25 percent to 40 percent (much higher than the awarded 12.5 percent), the Federal Circuit was concerned that ResQNet's expert used unrelated licenses to drive up the royalty rate. The other two licenses faced similar problems. One license was a lump sum agreement that ResQNet's expert was unable to analogize to a running royalty rate and the other agreement contained a royalty rate that was substantially less than the 12.5 percent awarded. Unable to present strong evidence supporting its damages claim, ResQNet also failed the factor two analysis under *Georgia-Pacific*. The Federal Circuit vacated the jury award just like in *Lucent*. Description

2. Wordtech v. Integrated Network Solutions

The Federal Circuit came to a similar conclusion in *Wordtech*, which involved a patent infringement suit over automated compact disc duplication technology. The jury awarded \$250,000, ¹²⁸ but the Federal Circuit found that a new trial was warranted on damages. Citing *Lucent* and *ResQNet*, the Court ruled that Wordtech's past licenses lacked a substantial basis for the jury to make a comparison and contained royalty rates far lower than the rate given by the jury.

Wordtech offered no expert opinion on damages.¹³¹ Instead, the company offered testimony from its president, who also was the inventor of the patents. He presented thirteen licenses, all dealing with the same disk duplication technology.¹³² All three asserted patents shared a common parent application.¹³³ However, the Federal Circuit still ruled that all thirteen past licenses failed to support the verdict.¹³⁴ The two lump sum agreements provided no basis for comparison because the license did not describe "how the parties calculated each lump sum, the licensees' intended products, or

^{121.} Id.

^{122.} Id.

^{123.} *Id*.

^{124.} Id.

^{125.} Id. at 872-73.

^{126.} Id. at 873.

^{127.} Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1310 (Fed. Cir. 2010).

^{128.} Id. at 1312.

^{129.} Id. at 1323.

^{130.} Id. at 1319-21.

^{131.} Id. at 1319.

^{132.} Id.

^{133.} Id. at 1311.

^{134.} Id. at 1322.

how many products each licensee expected to produce."¹³⁵ Another license was rejected because it used per-unit fees.¹³⁶ The rest of the ten licenses stated royalties from 3–6 percent, far too low to support the 26.3 percent verdict rate.¹³⁷ Thus, Wordtech also failed the *Georgia-Pacific* factor two analysis and the Federal Circuit vacated the jury award and remanded for damages.¹³⁸

3. i4i v. Microsoft

On the other hand, the Federal Circuit affirmed the jury's damages awards in several post-*Lucent* cases. In *i4i*, the owners of a patent for a method of editing custom computer language sued Microsoft for patent infringement.¹³⁹ The jury awarded \$200 million in damages.¹⁴⁰ Despite the extremely high reasonable royalty calculation, the court concluded that the expert testimony supported the award.¹⁴¹

Unlike *Lucent*, *ResQNet*, and *Wordtech*, the Federal Circuit did not perform a factor two analysis because Microsoft did not file a pre-verdict JMOL on damages. ¹⁴² Instead, the court performed a *Daubert* analysis and focused on the expert testimony. ¹⁴³ The first expert for i4i used a calculated royalty rate of \$98 and multiplied that rate by the number of products sold. ¹⁴⁴ The expert claimed that the \$98 base rate was based on the 25 percent rule, ¹⁴⁵ which was "well-recognized" and "widely used" in the field at the time. ¹⁴⁶ More

"The 25 percent rule of thumb is a tool that has been used to approximate the reasonable royalty rate that the manufacturer of a patented product would be willing to offer to pay to the patentee during a hypothetical negotiation. . . . The Rule suggests that the licensee pay a royalty rate equivalent to 25 per cent of its expected profits for the product that incorporates the IP at issue."

Id.

146. i4i, 598 F.3d at 853. But see Uniloc, 2011 U.S. App. LEXIS 11, at *56 ("This court now holds as a matter of Federal Circuit law that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical

^{135.} Id. at 1320.

^{136.} Id.

^{137.} Id.

^{138.} Id. at 1323.

^{139.} i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 839 (Fed. Cir. 2010).

^{140.} Id.

^{141.} Id. at 856.

^{142.} Id. at 857.

^{143.} Id. at 853-57.

^{144.} Id. at 856.

^{145.} Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *48 (Fed. Cir. Jan. 4, 2011). The court noted that

importantly, i4i's expert provided a plethora of data on how he calculated damages, unlike the experts in *Lucent*, *ResQNet*, and *Wordtech*. ¹⁴⁷ For example, the expert gave the exact numbers he used to calculate the royalty rate. ¹⁴⁸ He explained what benchmark rate he used, what the benchmark product was, why it was chosen, and why it was necessary. ¹⁴⁹ He also explained the sources and facts used in his analysis, using material from internal Microsoft documents, custom XML software, and a user survey. ¹⁵⁰ In a thorough presentation, the expert explained how he considered *Georgia-Pacific* factors three, five, six, nine, and eleven, and then adjusted the baseline royalty accordingly by two dollars. ¹⁵¹ Furthermore, he discussed the acceptance of the hypothetical negotiation model among damage experts and economists, and explained how he applied the model to the facts at hand. ¹⁵² While parts of his testimony were based on estimations, he provided enough foundation to satisfy *Daubert*. ¹⁵³ He even described weaknesses in his damages estimate, and how he adjusted accordingly. ¹⁵⁴

A second expert gave intricate details of the survey, including all of the statistics involved.¹⁵⁵ This second expert acknowledged weaknesses in the survey, explained any assumptions and biases made, and documented the numbers used in the calculations.¹⁵⁶

Microsoft cross-examined the testimony, presented contrary evidence, and brought its own experts to attack every detail presented by i4i's two experts. ¹⁵⁷ As a result, the Federal Circuit ruled that the *Daubert* standard was satisfied and that i4i's expert testimony was admissible. ¹⁵⁸ The Federal Circuit affirmed the jury award of damages. ¹⁵⁹

negotiation. Evidence relying on the 25 percent rule of thumb is thus inadmissible under *Daubert*...").

^{147.} i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 852-56 (Fed. Cir. 2010).

^{148.} *Id.* at 853.

^{149.} Id.

^{150.} Id. at 854.

^{151.} Id. at 853-54.

^{152.} Id. at 854.

^{153.} Id. at 856.

^{154.} *Id.* at 854 (discussing how the expert's damages estimate only considered users who "really needed" the custom XML editor, making it inappropriate to use the \$50 price difference paid by all purchasers of Word).

^{155.} *Id.* at 855.

^{156.} Id.

^{157.} Id. at 856.

^{158.} Id.

^{159.} Id. at 857.

4. Fujifilm v. Benun

The Federal Circuit similarly affirmed the jury's damages award in Fujifilm v. Benun, where the court briefly discussed damages. Fujifilm's expert testified at length about collateral sales. He explained in detail about what he included in the royalty base and how the royalty rate changed inversely to changes in the royalty base. The court did not cite Daubert, Lucent, or other post-Lucent cases, but did rule that the expert provided the jury with sufficient information for it to award the disputed amount. Thus, the court affirmed the damage award. Thus, the court affirmed the damage award.

5. Finjan v. Secure Computing

The Federal Circuit also affirmed the jury's damages award in *Finjan v. Secure Computing*. ¹⁶⁵ Finjan sued Secure Computing Corporation for patent infringement over a proactive scanning technology for computer security. ¹⁶⁶ The jury awarded \$9.18 million in royalties and the district court enhanced those damages by 50 percent along with a permanent injunction. ¹⁶⁷ The Federal Circuit affirmed the damages award, ¹⁶⁸ concluding that substantial evidence existed to support the award because Finjan's expert explained his analysis and based it on testimonial evidence. ¹⁶⁹ For example, the expert discussed how he used company-wide instead of product-specific products to calculate gross profits. ¹⁷⁰ He explained how he discounted 80 percent of research and development costs for future products and why. ¹⁷¹ He also explained how he determined a 33 percent operating profit margin based on industry custom, prior licenses, competitiveness of the parties, and the importance of the patented technology. ¹⁷²

The defendant argued that a Finjan-Microsoft license with a smaller royalty rate failed to support the verdict, but Finjan's expert explained how Finjan did not compete with Microsoft and how Finjan received significant

^{160.} Fujifilm Corp. v. Benun, 605 F.3d 1366, 1372 (Fed. Cir. 2010).

^{161.} Id. at 1372.

^{162.} Id.

^{163.} Id.

^{164.} Id. at 1373.

^{165.} Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1212 (Fed. Cir. 2010).

^{166.} Id. at 1200.

^{167.} Id. at 1202.

^{168.} Id. at 1213.

^{169.} Id. at 1209-10.

^{170.} Id.

^{171.} Id. at 1210.

^{172.} Id. at 1210-11.

intangible value from Microsoft's endorsements of Finjan.¹⁷³ The court found that these differences allowed the jury to properly discount the Microsoft license.¹⁷⁴ Again, the court did not mention *Daubert, Lucent*, or post-*Lucent* cases, but ruled that the award was supported by the evidence (suggesting that the evidence passed the *Georgia-Pacific* factor two and *Daubert* analyses).¹⁷⁵ Therefore, the court affirmed the district court's decision.¹⁷⁶

6. Uniloc USA v. Microsoft

Uniloc is the most recent case in the series and it followed the trends set forth in Lucent, ResQNet, and Wordtech. Uniloc sued Microsoft for patent infringement over a system that deters copying software. The jury found that Microsoft engaged in willful infringement and awarded Uniloc \$388 million in damages. On appeal, the Federal Circuit determined that the jury award was fundamentally tainted by the use of the 25 percent rule and held that this rule was a legally inadequate methodology under Daubert. Thus, a new trial for damages was required.

Uniloc's expert opined that damages should have been \$565 million.¹⁸¹ He explained how he began his calculations with the so-called 25 percent rule of thumb, adjusted for the relevant *Georgia-Pacific* factors, and multiplied by the number of infringing licenses given out.¹⁸² To double check the reasonableness of his calculations, he compared the resulting royalty to Microsoft's overall revenues from the accused product.¹⁸³

The main focus on appeal was the expert's use of the 25 percent rule, a tool used to approximate the reasonable royalty rate that the manufacturer of a patented product would be willing to pay the patentee during a hypothetical negotiation.¹⁸⁴ The rule, which has been widely accepted (and even "passively tolerated" by the Federal Circuit in prior cases¹⁸⁵), suggests that the licensee

^{173.} *Id.* at 1211–12.

^{174.} Id. at 1212.

^{175.} Id.

^{176.} *Id*.

^{177.} Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *3 (Fed. Cir. Jan. 4, 2011).

^{178.} Id. at *13.

^{179.} Id. at *2.

^{180.} *Id.*

^{181.} Id. at *43.

^{182.} Id. at *44-45.

^{183.} Id. at *45.

^{184.} Id. at *48.

^{185.} Id. at *52.

pay a royalty rate of 25 percent of its expected profits. This percentage is based on a careful examination of years of licensing data across different companies and industries. 187

Using Daubert, the Federal Circuit took a firm stance and rejected the 25 percent rule as fundamentally flawed. Citing Lucent, ResQNet, and Wordtech, the court stated that the rule did not "tie a reasonable royalty base to the facts of the case at issue." The court found that the 25 percent rule of thumb was an abstract construct that failed to say anything about any particular hypothetical negotiation or any particular technology. When the rule was offered as a starting point for reasonable royalty calculations, it resulted in fundamentally flawed conclusions. Because Uniloc's expert used the 25 percent rule, which was arbitrary and unrelated to the facts of the case, the damages estimate failed both the Daubert and Georgia-Pacific factor two analyses. Thus, the Federal Circuit held that Microsoft was entitled to a new trial on damages.

D. THE CURRENT STATUS OF FEDERAL CIRCUIT EVIDENTIARY REQUIREMENTS: PAST LICENSES AND EXPERT TESTIMONY

1. No More Deference in Reviewing Patent Damages

These cases illustrate that the Federal Circuit will no longer defer to the district court in reviewing damage calculations and will no longer follow an abuse of discretion standard.¹⁹⁴ Instead, the Federal Circuit will look at the substance of any past licenses presented. In *Lucent*, *ResQNet*, and *Wordtech*, the court scrutinized the patents used in the licensing agreements and compared them to the patent-in-suit.¹⁹⁵ They looked at *every* single license presented by the parties and noted any unexplained differences.¹⁹⁶ They

^{186.} Id. at *48.

^{187.} Id. at *50.

^{188.} Id. at *56.

^{189.} Id. at *56-65.

^{190.} Id. at *62.

^{191.} Id. at *63.

^{192.} Id. at *65.

^{193.} Id. at *2.

^{194.} See note 79, supra (discussing how the Federal Circuit used to defer to the district court for damage calculations).

^{195.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1327-31 (Fed. Cir. 2009); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870-73 (Fed. Cir. 2010); Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1319-22 (Fed. Cir. 2009).

^{196.} Lucent, 580 F.3d at 1327-31; ResQNet, 594 F.3d at 870-73; Wordtech, 609 F.3d at 1319-22.

examined the different types of licenses and distinguished running royalties from lump sum royalties. 197 Furthermore, the court looked at the methodologies used by the experts to calculate damages and rejected methodologies that were inappropriate. 198 For example, in Uniloc, the court analyzed and rejected both the expert's use of the 25 percent rule and his "check" on the reasonableness of his calculations. 199 The court even quoted expert testimony and dissected the specific words used by the expert.²⁰⁰ Despite mentioning a highly deferential standard in i4i, 201 the Federal Circuit will likely continue to scrutinize past licenses.

2. Parties Must Present Evidence on the Subject Matter of the Past License Agreements

The royalty rates of past licenses (Georgia-Pacific factors one and two) are some of the most influential factors in determining reasonable royalties.²⁰² While there are thirteen other Georgia-Pacific factors, many of these other factors are directly related to negotiating the royalty rates of the past license agreement. 203 Since Lucent, the Federal Circuit has provided general guidelines for how parties should present past licenses as evidence.

First of all, parties can only present past licenses that bear some relation to the hypothetical negotiation at issue.²⁰⁴ The Federal Circuit is eliminating

^{197.} Lucent, 580 F.3d at 1326.

^{198.} Lucent, 580 F.3d at 1328-29; ResQNet, 594 F.3d at 870-72; Wordtech, 609 F.3d at 1319-22.

^{199.} Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *47-74 (Fed. Cir. Jan. 4, 2011).

^{200.} Lucent, 580 F.3d at 1327; ResONet, 594 F.3d at 870-71; Wordtech, 609 F.3d at 1321.

^{201.} i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 857 (Fed. Cir. 2010) ("This standard is highly deferential: we may set aside a damages award and remand for a new trial 'only upon a clear showing of excessiveness."") (internal citation omitted) (emphasis in original).

^{202.} Mobil Oil Corp. v. Amoco Chemicals Corp., 915 F. Supp. 1333, 1353 (D. Del. 1994) ("Courts and commentators alike have recognized that the royalties received by the patentee for the licensing of the patents in suit is the 'most influential factor' in determining a reasonable royalty."); see also Durie, supra note 42, at 641 ("Georgia-Pacific factors one, two, and twelve relate to what might seem the most obvious piece of evidence to be used in calculating a reasonable royalty—actual royalties charged for this or other comparable inventions in the industry.").

^{203.} For example, factors such as the scope of the license (factor 3), relationship between the licensor and licensee (factor 5), duration of the patent and terms of the license (factor 7), profitability of the patent (factor 8), and nature of the patented invention (factor 10) all likely affect the rates of the license that the parties originally agreed upon.

^{204.} Uniloc, 2011 U.S. App. LEXIS 11, at *62 ("The meaning of these cases is clear: there must be a basis in fact to associate the royalty rates used in prior licenses to the particular hypothetical negotiation at issue in the case.").

unrelated past licenses from consideration in patent damage analyses.²⁰⁵ Furthermore, information or data derived from unrelated past licenses is also prohibited.²⁰⁶ In *Uniloc*, the 25 percent rule of thumb was just a statistic based off of many unrelated past licenses.²⁰⁷ Uniloc's expert attempted to present this aggregate of unrelated past licenses in a different (numeric) form and failed to persuade the court on that basis. Thus, *Uniloc* expanded upon the previous cases to suggest that *both* unrelated past licenses and information based on unrelated past licenses (or other questionable evidence) are all unacceptable.

Second, parties must present evidence on the *subject matter* of the past license agreements for the jury to evaluate their probative value. However, the Federal Circuit has never clearly stated what subject matter would be sufficient, only stating what is insufficient. For example, the court in *Wordtech* did not accept arguments on how the jury could have inferred a higher rate because the patentee preferred a share of the expected profit over percentage royalty. The court also did not accept arguments on how the jury could have inferred higher rates merely because numerous infringers existed before the patent-in-suit was issued. These arguments alone were too speculative and provided no information on exactly how the licensing environment influenced royalty rates. The Federal Circuit has also stated that past licenses that dealt with entire patent portfolios cannot be compared to licenses involving just one narrow method. Past licenses with unknown subject matter or technology cannot be used in estimating royalties.

^{205.} Eric Bensen, Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011) ("Because the Hypothetical License is nothing more than a naked right to practice the claimed invention while real world license agreements, in addition to being unrelated to the patent, typically provide for rights well beyond the right to practice the invention, the impact the Federal Circuit's holdings is to largely eliminate such licenses from consideration in patent damages analyses.").

^{206.} Uniloc, 2011 U.S. App. LEXIS 11, at *56.

^{207.} Id. at *50.

^{208.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1327-38 (Fed. Cir. 2009).

^{209.} See ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870–73 (Fed. Cir. 2010); Lucent, 580 F.3d at 1327–31; Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1319–22 (Fed. Cir. 2009).

^{210.} Wordtech, 609 F.3d at 1321-22.

^{211.} Id. at 1322.

^{212.} Id.

^{213.} Lucent, 580 F.3d at 1328.

^{214.} *Id.* (discussing how when the Court cannot figure out what the subject matter of the agreements is based on the evidence, the jury also could not have adequately evaluated the probative value of those agreements).

licenses that cover more than the patent-in-suit cannot be used.²¹⁵ In fact, the Federal Circuit may reject past licenses that cover the *same* exact patents as the patent-in-suit.²¹⁶ In *Wordtech*, the court refused to consider lump sum license agreements that covered the same disc duplication technology as the patents-in-suit because the agreements failed to describe how the parties calculated each lump sum.²¹⁷

If parties want to utilize past licenses to calculate hypothetical royalties on new licenses, then they must account for the "technological and economic differences" between them. 218 The Federal Circuit has provided some hints as to what parties must do. In Uniloc, the Federal Circuit rejected the 25 percent rule in part because the rule took "no account of the importance of the patent to the profits of the product sold, the potential availability of close substitutes or equally noninfringing alternatives, or any of the other idiosyncrasies of the patent at issue that would have affected a realworld negotiation."219 In Wordtech, the court suggested that parties should present evidence of intended products, expected production, volume of sales, or projected sales. 220 These business records are likely the subject matter that the Federal Circuit was looking for to ensure that the jury had adequate evidence to thoroughly evaluate the value of a technology. The court wanted parties to provide details on the numbers used and why they were used so that these details could be subjected to rigorous cross-examination and contrasted with opposing evidence.²²¹ The cases suggest that the court is pushing patentees to

^{215.} ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870–71 (Fed. Cir. 2010) (discussing how there was no link when ResQNet's expert attempted to compare rebundled or patent plus software licenses to the patent-in-suit).

^{216.} Wordtech, 609 F.3d at 1320.

^{217.} Id.

^{218.} Id. ("We stressed that comparisons of past patent licenses to the infringement must account for 'the technological and economic differences' between them."); ResQNet, 594 F.3d at 873 (discussing how ResQNet's rebundled licenses were adjusted upward without accounting for the technological and economic differences between those licenses and the patent-in-suit).

^{219.} Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *50 (Fed. Cir. Jan. 4, 2011).

^{220.} Wordtech, 609 F.3d at 1320.

^{221.} See i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 856 (Fed. Cir. 2010) (discussing how vigorous cross-examination and presentation of contrary evidence are the ways to attack shaky evidence and how Microsoft had these opportunities and took advantage of them); Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1210 (Fed. Cir. 2010) (discussing how Finjan's expert was subject to cross-examination and how the jury was free to consider any contradicting evidence).

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provide actual evidence of a patent's true value (i.e. apportion).²²² Mere recitations of royalty rates from unrelated past licenses (or data based on unrelated past licenses) do not allow the jury to weigh contradictory evidence or to resolve factual disputes. Parties must present evidence on the subject matter of past licenses. Otherwise, the Federal Circuit will reject the evidence via a *Georgia-Pacific* factor two analysis.

3. Damage Experts Must Specify a Precise Methodology

The Federal Circuit remanded the jury awards in Lucent, ResQNet, and Wordtech, 223 but affirmed the jury awards in i4i, Fujifilm, and Finjan. 224 The difference, at least in part, lies in how the experts presented their testimony. The experts in i4i, Fujifilm, and Finjan all presented a specific and lengthy methodology for calculating patent damages. They also presented the specific numbers used to calculate the hypothetical royalty rate. Their methodology did not have to be perfect—they admitted to weaknesses in their methodology and adjusted accordingly. More importantly, the other side had the opportunity to challenge and cross examine the experts' methodology. 228

^{222.} Eric Bensen, Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011).

^{223.} Lucent, 580 F.3d at 1340; ResQNet, 594 F.3d at 873; Wordtech, 609 F.3d at 1323.

^{224.} *i4i*, 598 F.3d at 864; *Finjan*, 626 F.3d at 1213; Fujifilm Corp. v. Benun, 605 F.3d 1366, 1373 (Fed. Cir. 2010).

^{225.} *i4i*, 598 F.3d at 853–56; *Finjan*, 626 F.3d at 1209–12; *Fujifilm*, 605 F.3d at 1372–73 ("[T]he expert testified at length about *Georgia-Pacific* factor 6.").

^{226.} *i4i*, 598 F.3d at 853 (discussing how the expert used a \$98 baseline royalty); *Finjan*, 626 F.3d at 1209 (discussing how the expert used an operating profit margin of 25 percent for the hardware products and 55 percent for the software products and how it resulted in the 8 percent and 18 percent royalty rates); *Fujifilm*, 605 F.3d at 1372–73 (discussing how if "50% of LFFPs [(lens-fitted film packages)] infringed, and the royalty base only included infringing LFFPs (a reduction by one-half in the size of the potential royalty base of all LFFPs), then the royalty rate would double from 40 cents to 80 cents per infringing LFFP").

^{227.} *i4i*, 598 F.3d at 855 (discussing how the expert opined that his estimate was conservative because he assumed every company that did not respond was not infringing, which was highly unlikely and caused a serious downward bias); *Finjan*, 626 F.3d at 1209 ("Parr admitted that he used Secure's company-wide, instead of product-specific, gross profits to calculate royalty rates."); *i4i*, 598 F.3d at 853 (noting that the expert used a "well-recognized" 25-percent rule, which seemed rather ambiguous at the time).

^{228.} i4i, 598 F.3d at 856; Finjan, 626 F.3d at 1210; Fujifilm, 605 F.3d at 1373.

On the other hand, these opportunities were absent in Lucent, ResQNet, and Wordtech. 229 The experts in Lucent, ResQNet, and Wordtech failed to provide any methodology. They appeared to show up in court merely to recite the royalty rates of other licenses.²³⁰ None of the experts provided any data on intended products, expected production, or projected sales.²³¹ Lucent's and ResQNet's experts did not even present any past licenses with a relationship to the patent-in-suit.²³² The Federal Circuit remanded these cases, in part, because damage experts must present a specific methodology. The court will not accept mere recitations of large royalty rates based on unreliable evidence that may mislead the jury. Such expert testimony will be rejected under Daubert and Rule 702 of the Federal Rules of Evidence.²³³

LUCENT AND POST-LUCENT CASES CLARIFIED III. EVIDENTIARY STANDARDS TO IMPROVE PATENT **JURISPRUDENCE**

Lucent and post-Lucent cases introduced two ideas that will improve the calculation of reasonable royalties. First, the Federal Circuit strengthened the Georgia Pacific factors by changing the evidentiary standards for past licenses.²³⁴ Second, the court took a closer look at expert testimony to exclude questionable testimony.²³⁵ Both of these improvements will have positive impacts on the resolution of patent infringement cases.

EVIDENTIARY STANDARDS FOR PAST LICENSES

Jury awards have increased significantly over the past decade.²³⁶ These large jury awards still populate the news.237 To prevent excessively large

^{229.} Wordtech did not use a damages expert, but offered testimony through its President, who also happened to be the inventor of the patents-in-suit. Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1319 (Fed. Cir. 2009).

^{230.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1328 (Fed. Cir. 2009); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870 (Fed. Cir. 2010); Wordtech, 609 F.3d at 1319.

^{231.} Lucent, 580 F.3d at 1328; ResQNet, 594 F.3d at 870; Wordtech, 609 F.3d at 1320.

^{232.} Lucent, 580 F.3d at 1328; ResQNet, 594 F.3d at 870.

^{233.} Uniloc also provides a great example of this standard. The Federal Circuit rejected the 25 percent rule because there was no methodology for how it was calculated. Conversely, the court appeared to have no qualms about the other aspects of Uniloc's methodology (e.g. using an internal pre-litigation document, adjusting for the relevant Georgia-Pacific factors, or multiplying by the number of infringing licenses given out). Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *44-45 (Fed. Cir. Jan. 4, 2011).

^{234.} See supra Section II.D.2.

^{235.} See supra Section II.D.3.

^{236.} See supra Section I.C.

awards, the Federal Circuit has required parties to present evidence on the subject matter of past licenses in *Lucent* and post-*Lucent* cases. This is the correct approach because the requirement clarifies the *Georgia-Pacific* factors, promotes economic growth, encourages greater disclosure of information, and increases the accuracy of jury awards.

1. The Benefits of Clarifying Georgia-Pacific Factors One and Two

Georgia-Pacific has been followed for decades, but the body of law provides little guidance in calculating royalty rates because juries make the ultimate royalty rate determinations.²³⁹ Over the last decade, this uncertain standard has allowed NPEs to thrive.²⁴⁰ While the Federal Circuit's decisions post-Lucent do not resolve all of the uncertainty surrounding the Georgia-Pacific factors, they do provide further guidance for factors one and two. Parties in the future will know that they cannot merely bring in highly qualified experts to recite royalty rates. The experts must present further evidence of expected production, volume of sales, availability of substitutes, or other business records detailing how they calculated the royalty rate. All parties have to do is keep the records that they used in their licensing negotiations. Thus, the Federal Circuit's recent guidance in this area reduces uncertainty because parties will not have to perform as much extensive legal or economic research compared to litigation pre-Lucent. This change minimizes litigation costs, which in turn promotes innovation and economic growth.

In fact, the Federal Circuit's clarification of the *Georgia-Pacific* reasonable royalty approach is essential to economic growth and innovation.²⁴¹ The uncertainty in patent litigation damages has increased the business risk for companies trying to introduce new goods and services to the market.²⁴² With the rise of NPEs, businesses have to divert resources from innovation to

^{237.} See, e.g., Gene Quinn, CorporateCounsel.com Names Top 10 IP Litigation Wins of 2009, IPWATCHDOG, Mar. 24, 2010, available at http://ipwatchdog.com/2010/03/24/corporatecounsel-com-names-top-10-ip-litigation-wins-of-2009/id=9827/; Miguel Helft & John Schwartz, Apple Challenges Big Award over Patents, N.Y. TIMES, Oct. 4, 2010, available at http://www.nytimes.com/2010/10/05/technology/05apple.html; Sinead Carew, Microsoft Hit With \$1.52 Billion Patent Suit Damages, REUTERS, Feb. 23, 2007 available at http://www.reuters.com/article/idUSWEN465120070223.

^{238.} See supra Section II.D.2.

^{239.} Eric Bensen, Bensen on Lucent Techs., Inc. v. Gateway, Inc., 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sept. 11, 2009), and its Impact on Patent Damages Law, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

^{240.} See supra Section I.C.

^{241.} COAL. FOR PATENT FAIRNESS, supra note 49, at 1.

^{242.} Id.

litigation costs, licensing costs, infringement studies, and invalidity analysis.²⁴³ This causes the development of risky but promising products to be abandoned due to potential litigation costs and high damages awards.²⁴⁴ Patent infringement defendants have to spend millions on patent litigation because of technical complexity and unclear legal standards.²⁴⁵ The average patent suit costs millions to defend.²⁴⁶ As a result, millions of dollars that could have been devoted to creating new jobs and commercializing new products are drained by legal and expert fees.²⁴⁷ Engineers also have to spend time analyzing the influx of opportunistic lawsuits and licensing requests.²⁴⁸ A recent study by economist Everett Ehrlich found that clarification of the reasonable royalty standard could create over 100,000 jobs over the next five years because of additional investments in research and development of new products.²⁴⁹ Thus, the Federal Circuit made the correct move in specifying what evidence is required to support reasonable royalty analyses and clarifying a critical aspect of the *Georgia-Pacific* factors.

2. The Importance of Encouraging Disclosure

With all the uncertainty surrounding the calculations of reasonable royalties, the Federal Circuit should encourage disclosure of licensing data in general.²⁵⁰ Licensors and licensees have legitimate motives for concealing data and terms from prior licenses. The terms may be unfavorable, irrelevant, or

^{243.} *Id*.

^{244.} Id.

^{245.} Id. at 4.

^{246.} Id. at 4–5 (citing the AIPLA Report of the Economic Survey 2007, at 25–26); see Cliff Rudolph, Defense Against Patent Infringement Suits, PARKER, SMITH & FEEK, Oct. 2010, at 1, available at http://www.psfinc.com/sites/default/files/print-pdfs/defense-against-patent-infringement-suits.pdf; Mark Liang, The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities, 19 Tex. INTELL. PROP. L.J. 29, 34 (2010) (discussing how it costs parties \$1.5–2.5 million to defend against patent infringement suits).

^{247.} COAL. FOR PATENT FAIRNESS, *supra* note 49, at 6; *see also* Matthew Sag & Kurt Rohde, *Patent Reform and Differential Impact*, 8 MINN. J.L. SCI. & TECH. 1, 10 ("The meritless assertion of patent rights diverts scarce research and development funding from engineering to lawyering.").

^{248.} COAL. FOR PATENT FAIRNESS, supra note 49, at 6.

^{249.} EVERETT EHRLICH, ECONOMIC EFFECTS OF CLARIFYING THE STANDARD FOR ASSESSING REASONABLE ROYALTY DAMAGES UNDER PATENT LAW 5 (Coalition for Patent Fairness 2009), available at http://www.patentfairness.org/pdf/whitepapers/Ehrlich_study_0309_FINAL.pdf.

^{250.} C.f. Unisplay, S.A. v. Am. Elec. Sign Co., 69 F.3d 512, 517 (Fed. Cir. 1995) (discussing how reasonable royalty calculations carry an inherent degree of approximation and estimation).

confusing. Although the value of protecting licensing information depends on how heavily the other party values the information, parties will reveal information if the benefits of disclosure outweigh the benefits of keeping it secret. In *Lucent* and subsequent cases, the Federal Circuit shifts this balance towards disclosure, which is important for several reasons.

First, when the court forces parties to disclose more licensing data at trial, parties will likely end up disclosing more data to the other side early on in litigation. They will have the incentive to keep better records and conduct better studies. This, in turn, may lead to quicker settlements and more efficient licensing agreements if parties realize that they will have to eventually disclose the information at trial.

Second, by clarifying the *Georgia-Pacific* reasonable royalty factors, the Federal Circuit reduces the power of NPEs. Because NPEs do not provide products or services, they generally do not have data on expected products or anticipated sales. At most, they can blindly cite their own licensing agreements, which were likely signed under the pressures of litigation. However, without any substance underlying their past agreements, NPEs will face great difficulty in producing evidence to support their asking rate. Large jury awards drive inflated licensing rates, which in turn drive large jury awards and settlement agreements. By emphasizing the disclosure of licensing data, the Federal Circuit ends this circularity and ensures that NPEs can no longer recite the large numbers from their past licenses without more evidence. In addition, NPEs will no longer be in a position to negotiate licensing fees that are grossly out of alignment with their contribution to the infringer's product. As a result, NPEs will eventually receive lower royalty rates.²⁵¹

Some may argue that requiring increased disclosure means that parties will have to expend greater resources to perform detailed economic studies. This is not the case. The Federal Circuit is not asking parties to conduct detailed surveys of a thousand large and small businesses (as i4i did). The court has acknowledged that parties do not have precise data. Rough estimates of expected use are sufficient. There is no indication that the

^{251.} Remember, the goal here is not to drastically weaken the power of NPEs, but to ensure that they are accurately compensated. NPEs may actually "play an important role in the innovation economy by acting as intermediaries between promising independent inventors and users of technology." Sannu K. Shrestha, Trolls or Market-makers? An Empirical Analysis of Nonpracticing Entities, 110 COLUM. L. REV. 114, 118 (2010).

^{252.} i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 855 (Fed. Cir. 2010).

^{253.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1333 (Fed. Cir. 2009).

^{254.} Id.

court would require parties to spend more money on research. Instead, the court likely wants parties to present the information they already have, including how they obtained that information. In negotiating licenses, parties do not just pull numbers out of thin air; they must have had some numbers or data to base their values on. Even if the information they used was not accurate, it can still be presented to the court.

3. The Value of Barring Parties from Presenting Unrelated Licenses

The Federal Circuit has eliminated unrelated past licenses from consideration in patent damage analyses and should do so because every licensing agreement is unique. In proving reasonable royalties, parties should never recite royalty numbers of past licenses without accounting for the differences, even if the past licenses involved the same exact patents. Reasonable royalties, by definition, are not established royalties. Reasonable royalties are a legal fiction to determine what a hypothetical willing licensor and licensee would have agreed upon.²⁵⁵ The Federal Circuit has continually acknowledged that calculating reasonable royalties involves a certain amount of estimation and approximation.²⁵⁶ Every license will be different. Every license is the result of vigorous negotiation. 257 Different companies have different bargaining power, and as a result, factors such as exclusivity, timing, signing fees, stock agreements, cross-licensing, milestone payments, minimum royalty payments, discounts, and other costs differ. A license that was agreed upon even months after another license involving the same patent could face a different market, making comparison of their royalty rates difficult. In addition, there is just no easy way to determine the value of a particular technology.²⁵⁸ Every molecule could be the next blockbuster therapeutic. Every electronic chip could change consumer demand. Thus, it is difficult to compare two licenses without accounting for their differences because so many factors could affect the royalty rate during negotiations. To enable the accurate comparison of licensing agreements and improve the

^{255.} Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1159 (6th Cir. 1978).

^{256.} Lucent, 580 F.3d at 1336; ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 881 (Fed. Cir. 2010); Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1319 (Fed. Cir. 2009).

^{257.} MARK HOLMES, PATENT LICENSING: STRATEGY, NEGOTIATION, AND FORMS 4-2 § 4.1 (Practicing Law Institute 2010).

^{258.} Jennifer Giordano-Coltart & Charles W. Calkins, Best Practices in Patent License Negotiations, Oct. 26 2007, available at http://www.nature.com/bioent/2007/071001/full/bioe.2007.5.html.

accuracy of jury awards, courts should always require disclosure of the data used by the parties in licensing negotiations.

B. EVIDENTIARY STANDARDS FOR EXPERT TESTIMONY

Daubert gives judges the ability to act as a gatekeeper and sets out the framework for determining whether expert testimony is properly admitted under Rule 702.²⁵⁹ Under *Daubert*, evidence is admissible when the scientific testimony is both relevant and reliable, such that the evidence is sufficiently related to the case at hand and the methodology is sound.²⁶⁰ It is the judge's role to make sure scientific expert testimony proceeds from scientific knowledge.²⁶¹

Wary of patent damage experts who have advanced degrees but do no more than recite royalty rates, ²⁶² the Federal Circuit has required experts to specify their methodology for calculating damages in *Lucent* and subsequent cases. ²⁶³ In doing so, the Federal Circuit also suggested that judges take on a greater role as gatekeepers. There are several reasons why the Federal Circuit should continue to act as a gatekeeper and why district judges should take on a more active role in reviewing the relevance of evidence.

1. Gatekeeping is an Alternate Pathway to Ensuring Solid Evidence

Gatekeeping greatly complements the stricter evidentiary requirements because it is an alternate pathway to excluding questionable evidence. The strict evidentiary requirements on the usage of past licenses deter parties from presenting irrelevant licenses to begin with. If parties do present such licenses, then gatekeeping serves as a "check" to ensure that the jury never sees them. Thus, the Federal Circuit's should continue to use both a *Georgia-Pacific* factor two analysis and a *Daubert* analysis to ensure solid evidence.

^{259.} Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 589-90 (1993).

^{260.} Daubert, 509 U.S. at 589; Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141-42 (1999); Knight v. Kirby Inland Marine Inc., 482 F.3d 347, 351 (5th Cir. 2007); Moore v. Ashland Chem. Inc., 151 F.3d 269, 276 (5th Cir.1998).

^{261.} Daubert, 509 U.S. at 590–91. Daubert is not a guarantee of correctness and borderline shaky evidence is still admissible. i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 854–56 (Fed. Cir. 2010).

^{262.} For example, i4i's expert, Dr. Jesse David, has a Ph.D. in economics from Stanford. Yet, he presented past licenses with no relation to the patent-in-suit. ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870 (Fed. Cir. 2010).

^{263.} See supra Section II.D.3.

2. Gatekeeping Will Prevent Excessive Awards and Lead to More Accurate Damage Awards

The court's gatekeeping is necessary to help prevent excessive jury awards. *Lucent* is a clear example of how a judge's role in screening evidence is critical to ensuring accurate damages. The Day Patent merely allows users to select a series of numbers and enter a date without the use of a keyboard. Microsoft Outlook is primarily used for e-mail. The Outlook software also includes a calendar, task manager, contact manager, journal, note taker, and many other features. The Day Patent's date-picking ability was a minuscule feature in the software package. It did not merit an 8 percent royalty of the entire market value of Outlook, equivalent to a \$358 million award. However, Lucent was able to present expert testimony that ultimately led the jury to pick an amount between what its experts and Microsoft's experts proposed. If the judge had prevented Lucent's expert from introducing unrelated past licenses that inflated the asking rates, the jury would have likely awarded a lower, but more accurate, amount of damages.

The unrelated past licenses presented by *Lucent* did not assist the jury, as required by *Daubert* and Rule 702.²⁷⁰ By keeping out such irrelevant and unreliable evidence, courts can prevent another *Lucent*. Courts will more accurately compensate the patentee, parties will provide better evidence, jury trials will become more predictable, and reasonable royalties will be more reasonable.

3. Gatekeeping Is Necessary Because Daubert Is Rarely Used and Parties Do Not Challenge the Admission of Evidence Themselves

Even though the *Daubert* framework permits judges to serve as gatekeepers in evaluating expert testimony, judges rarely exclude testimony on patent damages.²⁷¹ A 2010 study of Federal Circuit cases since 1993 found

^{264.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1317 (Fed. Cir. 2009).

^{265.} *Id.* at 1332.

^{266.} See Microsoft's Outlook website for a full list of features and abilities. Microsoft, http://office.microsoft.com/en-us/outlook/?CTT=97 (last visited Feb. 21, 2011).

^{267.} Lucent, 580 F.3d at 1332 ("Outlook consists of millions of lines of code, only a tiny fraction of which encodes the date-picker feature.").

^{268.} Lucent, 580 F.3d at 1335.

^{269.} Id. at 1336.

^{270.} FED. R. EVID. 702.

^{271.} Durie, supra note 42, at 635.

only ten rulings on *Daubert* motions for patent damages.²⁷² Of these ten decisions, only six involved reasonable royalties and five allowed the testimony.²⁷³ Thus, the Federal Circuit has excluded testimony for reasonable royalties in just *one* case.²⁷⁴ District courts also rarely exclude expert testimony for patent damages.²⁷⁵ There were fifty-four district court opinions since 2000 that decided *Daubert* motions in a patent case.²⁷⁶ Only six cases excluded the patentee's expert testimony on reasonable royalties; another three excluded the testimony in part.²⁷⁷

These numbers indicate not only the deference previously shown by the Federal Circuit (pre-Lucent), but also the fact that the parties themselves do not raise Daubert motions. In Lucent, the court emphasized several times how neither party objected to the evidence. At various points in the opinion, the court stated:

In the present appeal, the parties, in offering the damages evidence, each adopted the hypothetical negotiation approach, without objection.²⁷⁸

Microsoft objected neither to the introduction of any of the licenses discussed below nor to the testimony of Lucent's expert as it related to those licenses.²⁷⁹

Microsoft does not argue on appeal that any of the evidence relevant to the damages award was improperly before the jury. ²⁸⁰

The license agreements admitted into evidence (without objection from Microsoft, we note) highlight how sophisticated parties routinely enter into license agreements that base the value of the patented inventions as a percentage of the commercial products sales price. ²⁸¹

[W]e need not address [amici's] assertion regarding jury instructions given or not given, for the simple reason that neither party at trial challenged any damages instruction that was given nor proposed an instruction and objected when it was not given.²⁸²

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272. Id.
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^{273.} Id.

^{274.} Id.

^{275.} Id.

^{276.} Id.

^{277.} Id.

^{278.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1325 (Fed. Cir. 2009) (emphasis added).

^{279.} Id. at 1325.

^{280.} Id.

^{281.} Id. at 1339 (emphasis added).

^{282.} Id. (emphasis added).

These repetitive quotes illustrate the court's concerns.²⁸³ The parties, for unknown reasons, should have challenged the evidence but failed to do so.²⁸⁴ Among *Lucent* and the post-*Lucent* cases, only the defendants in *i4i* challenged the admission of the expert testimony on damages.²⁸⁵ Thus, judges should take action because parties are not challenging the admissibility of the expert testimony or filing *Daubert* motions.

It is possible that judges are not proactively excluding evidence because of confusion about the validity of assuming the gatekeeper role. Under *Daubert*, judges are given the ability to gatekeep. ²⁸⁶ Conversely, the Federal Circuit stated in *Lucent* that it is the parties' responsibility to object to the evidence. ²⁸⁷ The court stated that, barring an objection, "the district court judge had no independent mandate to exclude any of that evidence." This statement suggests that district court judges can only exclude evidence if the parties first object to the evidence. This is generally not true. Courts have *sua sponte* analyzed expert testimony under *Daubert*. ²⁸⁹ However, some judges may

^{283.} The Federal Circuit also noted a lack of objections in *Uniloc*. Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *45–46 (Fed. Cir. Jan. 4, 2011) (discussing how Microsoft's attorney made no objection to Uniloc's expert's demonstrative pie chart, which Uniloc's expert used to accompany his testimony).

^{284.} Perhaps the parties do not challenge the evidence because it is common practice for plaintiff's experts to submit licenses that support a high royalty and for defendant's experts to submit a low royalty. See Eric Bensen, Bensen on Lucent Techs., Inc. v. Gateway, Inc., 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sep. 11, 2009), and its Impact on Patent Damages Law, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

^{285.} i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 852 (Fed. Cir. 2010).

^{286.} Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 589-90 (1993).

^{287.} Lucent, 580 F.3d at 1325 ("The responsibility for objecting to evidence, however, remains firmly with the parties.").

^{288.} Id.

^{289.} Gordon J. Beggs, Novel Expert Evidence In Federal Civil Rights Litigation, 45 AM. U.L. REV. 2, 39-40 (1995) ("Noting that neither party had challenged the admissibility of scientific evidence regarding the pain caused by lethal injection, the district court nonetheless considered itself bound to scrutinize this proof under Daubert. Accordingly, the court analyzed the evidence and ruled sua sponte that the expert evidence was admissible."); Iain D. Johnston, Survey of Seventh Circuit Decisions: Class Actions, 36 J. MARSHALL L. REV. 837, 852 (2003) (discussing how the 7th Circuit, sua sponte, engaged in an appellate, Daubert challenge to the expert's testimony); O'Conner v. Commonwealth Edison Co., 13 F.3d 1090, 1094 (7th Cir. 1994) ("[A]fter reconsidering the issue of admissibility of Dr. Scheribel's testimony sua sponte, the district court determined that Dr. Scheribel's testimony was inadmissible and entered judgment in favor of the defendants."); Hoult v. Hoult, 57 F.3d 1, 9 (1st Cir. 1995) ("We think Daubert does instruct district courts to conduct a preliminary assessment of the reliability of expert testimony, even in the absence of an objection."); Brenord v. Catholic Med. Ctr. of Brooklyn & Queens, Inc., 133 F. Supp. 2d 179, 188 n.4 (E.D.N.Y. 2001) ("The ability of a district court to evaluate expert testimony sua sponte and exclude such testimony where appropriate has been recognized by several courts.").

mistakenly think they cannot exclude evidence under *Daubert* unless the parties object, which may partially explain why *Daubert* is rarely used. When both sides blindly recite royalty rates that confuse and mislead the jury, judges should step in, even if the parties do not object. The *Lucent* court was greatly concerned by the lack of objections by both parties, as if both parties implicitly agreed to submit numbers in the extremes in the hope that the jury would pick one in the middle.²⁹⁰ Gatekeeping would certainly address these concerns.

The Federal Circuit has suggested that judges should take further action to gatekeep. For example, the Federal Circuit has stated that "district court judges must scrutinize the evidence carefully to ensure that the 'substantial evidence' standard is satisfied"²⁹¹ and that district courts must "exercise vigilance when considering past licenses to technologies *other* than the patentin-suit."²⁹² This need for "vigilance," coupled with the fact that the Federal Circuit remanded cases with specific instructions to exclude such questionable evidence, ²⁹³ suggests that district court judges should exclude expert testimony sua sponte when necessary.

4. Parties Should Not Be Allowed to Submit Irrelevant Evidence under the Guise of the Georgia-Pacific Factors.

The Federal Circuit had qualms about the expert testimony and how the parties cleverly used alternate methods to present questionable evidence in support of their claims.²⁹⁴ For example, Lucent's expert changed his testimony from a 1 percent reasonable royalty rate to 8 percent when the district court excluded the 1 percent testimony.²⁹⁵ This inflated 8 percent rate greatly differed from the rates he proposed for other patents-in-suit, which were all in the 1 percent range.²⁹⁶ Furthermore, he admitted that there was no evidence that Microsoft had ever agreed to pay an 8 percent rate on similar patents.²⁹⁷ The Federal Circuit stated that "[t]his cannot be an acceptable way to conduct an analysis of what the parties would have agreed to in the

^{290.} Lucent, 580 F.3d at 1325.

^{291.} Id. at 1336.

^{292.} ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 869 (Fed. Cir. 2010).

^{293.} *Id.* at 872–73 ("During that remand, however, the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates more clearly linked to the economic demand for the claimed technology.").

^{294.} See Lucent, 580 F.3d at 1338; ResQNet, 594 F.3d at 870.

^{295.} Lucent, 580 F.3d at 1338.

^{296.} Id.

^{297.} Id.

hypothetical licensing context.²⁹⁸ The approach of Lucent's expert ignores what the district court's evidentiary ruling tried to accomplish." 299 Daubert should be used to exclude such evidence.

The Federal Circuit expressed similar concerns in ResQNet. The court described ResQNet's expert's analysis as "troubling" and found that the "inescapable conclusion" was that ResQNet's expert used unrelated licenses to drive up the royalty rate into double figures, an amount over eight times greater than a straight license on the claimed technology.300 The expert misrepresented ResQNet's rebundled licenses as being related to the patentin-suit when the record showed the opposite.301 The expert's strategy appeared to be a deliberate effort to create confusion about the content of past licenses by using broad terms, calling it a bundling license, and providing a long list of the contents of the licenses (training, maintenance, marketing, upgrades, software, and other services).302 Such a strategy would confuse the jury about the appropriate royalty amount, leading them to pick a middle ground between the extremes.

Uniloc is another example of a clever effort by a party to evade the restriction on irrelevant evidence. Faced with the stricter evidentiary standards set forth in Lucent, ResQNet, and Wordtech, Uniloc's expert likely knew he could not present unrelated past licenses.³⁰³ Instead, the expert tried to present data based on unrelated past licenses, in the form of the 25 percent rule.304 While an expert may try to account for the many economic and technological differences between the licenses that form the basis for the 25 percent rule and the hypothetical license in any given case, the 25 percent rule coincidentally ignores those differences in practice.³⁰⁵ By using the 25

^{298.} Id.

^{299.} Id.

^{300.} ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870 (Fed. Cir. 2010).

^{301.} Id.

^{302.} Id.

^{303.} Uniloc's lawyers likely were up to date on recent patent law and informed Uniloc's expert that unrelated past licenses could not be presented in court. Furthermore, Uniloc's expert did not present any unrelated past licenses as evidence, suggesting that they likely knew that such licenses would not work under the new evidentiary standards.

^{304.} Uniloc USA, Inc. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, at *44 (Fed. Cir. Jan. 4, 2011).

^{305.} Eric Bensen, Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp., 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011) ("While perhaps it would be theoretically possible for an expert to account for the economic and technological differences between those licenses and the Hypothetical License in a given case, the 25 percent rule in application ignores those differences.").

percent rule, Uniloc's expert attempted to circumvent the Federal Circuit's recent effort to eliminate consideration of unrelated past licenses in patent damage analyses. In the absence of judicial gatekeeping at the district court level, the expert's strategy was effective and resulted in the highest jury award among *Lucent* and the post-*Lucent* cases. 306

Parties should not be able to admit irrelevant evidence under the guise of the *Georgia-Pacific* factors. *Georgia-Pacific* factor two allows parties to present royalty rates of past comparable licenses, but it does not define what "comparable" means nor how the past comparable licenses can differ. Parties should not be able to take advantage of such ambiguity to cleverly sneak irrelevant evidence into royalty assessments. Judges should follow the guidance of the Federal Circuit and actively seek to keep such evidence out.

5. Congress Has Attempted to Implement Gatekeeping

Congress has recognized a similar problem and attempted to address the issue by encouraging gatekeeping as well.³⁰⁷ As part of the 2007 Patent Reform Act, the House of Representative's proposal tried to force courts to serve as the gatekeeper of evidence relevant to reasonable royalty determinations.³⁰⁸ The Senate's proposal also tried to empower courts to serve as gatekeepers and to allow judges to identify evidence necessary for the jury's reasonable royalty determination.³⁰⁹ Furthermore, the 2009 Patent Reform Act had similar proposals.³¹⁰ Thus, to provide greater certainty in patent litigation and provide greater assistance to the jury, Congress also has suggested that judges should take on a greater role in gatekeeping.

6. The Juries' Difficulty in Weighing Complex Evidence Necessitates Gatekeeping

Judges must gatekeep because jurors face difficulties in weighing complex evidence and often lack legal guidance to determine the value of new

^{306.} *Uniloc*, 2011 U.S. App. LEXIS 11, at *43 ("The jury here awarded Uniloc \$388 million, based on the testimony of Uniloc's expert, Dr. Gemini.").

^{307.} Sannu K. Shrestha, *Trolls or Market-makers? An Empirical Analysis Of Nonpracticing Entities*, 110 COLUM. L. REV. 114, 116 (2010) ("Congress has also displayed concern about the role of NPEs and is currently considering several patent reform bills.").

^{308.} Erick S. Lee, Historical Perspectives on Reasonable Royalty Patent Damages and Current Congressional Efforts for Reform, 2009 UCLA J.L. & TECH. 2 (2009); H.R. 1908, 110th Cong. § 5(a)(2) (2007).

^{309.} Lee, *supra* note 308; S. 1145, 110th Cong. § 4(c)(1) (2008) ("The court shall...identify the factors that are relevant to the determination of a reasonable royalty, and [the fact finder]...shall consider only those factors in making such determination.").

^{310.} Lee, *supra* note 308; H.R. 1260, 111th Cong. § 5(a) (2009).

technologies.³¹¹ Judges have marveled at the factual complexity of patent cases and expressed reservations about trying such cases to juries.³¹² A prominent patent litigator stated: "Give jurors a complicated biotechnology case or one involving lasers or computers and their eyes glaze over."³¹³ Some patent litigators break down complex patent cases into a "good guy versus bad guy" story for juries so they can understand, while others bemoan how jury decisions are often based on emotion rather than facts or law.³¹⁴ This concern regarding juries also became a major focal point that Congress sought to address in the 2007 Patent Reform Act.³¹⁵ The problem is aggravated by the fact that courts excuse physicians, dentists, lawyers, and other professionals from jury service if such service would cause undue hardship or inconvenience.³¹⁶ As a result, highly educated people who are more likely to have technical and science backgrounds are underrepresented on juries.³¹⁷

Part of the problem lies with the multi-factor nature of the Georgia-Pacific framework. The royalty rates of past licenses may be incredibly useful to determining the royalty rate of the patent-in-suit, but sometimes, they are completely irrelevant (as in Lucent and ResQNet). When such irrelevant evidence is presented alongside a plethora of other evidence in support of the many Georgia-Pacific factors, juries face great difficulty in recognizing the probative value (or lack thereof) of any past licenses. Thus, when parties have

^{311.} This is especially problematic with the rise of jury trials for patent infringement cases. See supra Section I.C.

^{312.} Kimberley A. Moore, Symposium: Patent System Reforms: Jury Demands: Who's Asking?, 17 BERKELEY TECH. L.J. 847, 848 n.1 (2002); Joseph D. Wilkinson Jr., Frank D. Zeilenski & George M. Curtis, III, A Bicentennial Transition: Modern Alternatives to Seventh Amendment Jury Trials in Complex Cases, 37 U. KAN. L. REV. 61, 64 (1988).

^{313.} Moore, supra note 312, at 848 n.1.

^{314.} Id. at 849 n.3.

^{315.} Lee, *supra* note 308 ("Senate committee reports accompanying the most recent proposals for patent reform specifically noted that 'juries (and perhaps judges) ... lack adequate legal guidance to assess the harm to the patent holder caused by patent infringement,' and formed a major focal point of the problem the Committee sought to address.").

^{316.} See, e.g., United States v. Goodlow, 597 F.2d 159, 161 (9th Cir. 1979); United States v. Van Scoy, 654 F.2d 257, 262 (3d Cir. 1981).

^{317.} Gregory D. Leibold, In Juries We Do Not Trust: Appellate Review of Patent Infringement Litigation, 67 U. COLO. L. REV. 623, 649 (1996).

^{318.} Eric Bensen, Bensen on Lucent Techs., Inc. v. Gateway, Inc., 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sep. 11, 2009), and its Impact on Patent Damages Law, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009) (discussing how past licenses may only be marginally relevant to the patent-in-suit).

no relevant past licenses, they should not be able to present any past licenses to the jury.

Another concern deals with the proclivity of juries to have a just-desserts retribution approach, meaning that juries want to see bad people get what they deserve. 319 When opposing experts take extreme positions about what constitutes a reasonable royalty, juries are given a wide range of rates to choose from. With such discretion, juries may have an instinctive need to punish bad actors (patent infringers) and to seek retribution regardless of the deterrent effect. 320 Juries may themselves inflate awards, despite the fact that patent law already incorporates deterrents specifically designed to discourage blatant infringement and allows for enhanced damages.321 The Lucent jury may have acted to punish who it perceived to be the "bad actor." Lucent asked for \$561.9 million and Microsoft asked for \$6.5 million, and the jury awarded \$358 million—a number much closer to Lucent's asking price. 322 The jury's desire for retribution may also explain the result in Wordtech. Wordtech only asked for \$114,000, but the jury awarded over twice that, even though the district court eventually trebled the damages.³²³ While Wordtech dealt with a willful infringer, most infringement is innocent infringement—a fact that jurors may not realize.324 Empirical evidence suggests that independent invention is the norm. 325 Inflated royalty awards set precedent against both innocent and willful infringers alike when it comes to future settlement agreements and licensing rates.³²⁶ Therefore, without greater guidance from judges, juries may continue to overcompensate the patentee.

Patent trials are long and complex. Juries may face difficulties in juggling the plethora of information provided by counsel. Considering the increase of jury trials compared to bench trials, judges should aid the jury by acting as a gatekeeper to exclude irrelevant evidence.³²⁷

^{319.} Brian J. Love, The Misuse of Reasonable Royalty Damages as a Patent Infringement Deterrent, 74 Mo. L. REV. 909, 910 (2009).

^{320.} Id.

^{321. 35} U.S.C. § 284 (2006).

^{322.} Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1323-24 (Fed. Cir. 2009).

^{323.} Wordtech Sys. v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1320 (Fed. Cir. 2009).

^{324.} Love, supra note 319, at 936.

^{325.} Id. at 940.

^{326.} Id. at 935.

^{327.} In the 1980s, juries decided only 14 percent of patent cases with damages awards. In the 1990s, juries decided 24 percent of cases. In this past decade, juries decided 51 percent of cases. Aron Levko, Chris Barry, Vincent Torres & Robert Marvin, *Patent Litigation*

IV. CONCLUSION

Lucent v. Gateway represents a significant shift in the Federal Circuit's patent damages jurisprudence. Deviating from a historic practice of deference, the court chose not to defer to the district court in reviewing patent damages and instead closely scrutinized the evidence presented in court. Post-Lucent cases further establish that parties must present evidence on the subject matter of any past licenses presented in court. In addition, expert testimony must have a specific methodology and cannot merely recite royalty rates.

In Lucent and post-Lucent cases, the Federal Circuit made a critically important effort to ensure that reasonable royalty damage awards are actually reasonable. The court should continue to enforce a heightened evidentiary standard and serve as a gatekeeper to exclude questionable evidence. This gatekeeping serves as an alternate pathway to ensuring that only accurate evidence underlies damages awards. NPEs will also face greater hurdles if they try to obtain excessively large jury awards.

After *Lucent*, district courts have indeed scrutinized past licenses in greater detail, ³³¹ and rejected past licenses based on speculative circumstances. ³³² In addition, district courts have denied motions that request the other party to produce irrelevant past licenses. ³³³ The Federal Circuit's rulings in *Lucent* and post-*Lucent* cases have improved the patent damages system and should help prevent excessively large jury awards in the future.

Trends and the Increasing Impact of Nonpracticing Entities, PRICEWATERHOUSECOOPERS, Aug. 2009, available at http://www.pwc.com/us/en/forensic-services/publications/assets/2009-patent-litigation-study.pdf.

^{328.} See supra Section II.D.1.

^{329.} See supra Section II.D.2.

^{330.} See supra Section II.D.3.

^{331.} Ricoh Co. v. Quanta Computer, Inc., 2010 U.S. Dist. LEXIS 27301 (W.D. Wis. 2010).

^{332.} IP Innovation L.L.C. v. Red Hat, Inc., 705 F. Supp. 2d 687 (E.D. Tex 2010); City of Aurora v. PS Sys., Inc., 720 F. Supp. 2d 1243 (D. Colo. 2010).

^{333.} Wi-Lan Inc. v. Research in Motion Corp., 2010 U.S. Dist. LEXIS 77776 (S.D. Cal. 2010); Biax Corp. v. NVIDIA Corp., 2010 U.S. Dist. LEXIS 105869 (D. Colo 2010).