# **FOREWORD**

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The Annual Review is a yearly publication of the *Berkeley Technology Law Journal* that provides a summary of many of the year's major developments at the intersection of law and technology. Our aim is to provide a valuable resource for judges, policymakers, practitioners, students, and scholars. Each Note provides a primer on a particular area of law, a development in that area of law, and commentary on that development.

The twenty-six Notes in this issue continue a tradition of covering a wide range of topics. The Notes address developments in traditional intellectual property areas—patent, copyright, and trademark law—along with developments in cyberlaw, venture law, and privacy. Following the Notes in each area of law, we have included a Survey of Additional IP Developments, which contains brief descriptions of important cases that were not addressed in the Notes.

## I. PATENT LAW

Our first Note<sup>1</sup> in this Section examines the Supreme Court's decision in *Kimble v. Marvel Entertainment, LLC*,<sup>2</sup> which affirmed the 1964 *Brulotte* rule prohibiting post-expiration patent royalties. By reviewing the history of the patent misuse doctrine and recent attempts to incorporate antitrust principles and the rule of reason, the Note explores the Court's use of patent policy and stare decisis in justifying its decision.

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<sup>1.</sup> Cassandra E. Havens, Note, Saving Patent Law from Competition Policy and Economic Theories: Kimble v. Marvel Entertainment, 31 BERKELEY TECH. L.J. 371 (2016).

<sup>2. 135</sup> S. Ct. 2401, 2410 (2015).

The second Note<sup>3</sup> examines the Supreme Court's decision in *Teva v. Sandoz*,<sup>4</sup> which established a new hybrid standard of review for claim construction decisions. To explore the effects of *Teva* in the year since it came out, this Note explores trends in district court *Markman* decisions, addresses an unanswered question from *Teva*, and reviews three options going forward.

The third Note<sup>5</sup> analyzes the international landscape of FRAND licensing practices in major jurisdictions with substantial technological markets. This Note argues that as courts and regulatory authorities have matured on the subject, they have generally converged in how they address hold-up, hold-out, and royalty pricing issues.

The fourth Note<sup>6</sup> evaluates the Federal Circuit's second en banc decision in *Akamai Technologies*, *Inc. v. Limelight Networks*, *Inc.*, which expanded the scope of direct infringement under § 271(a) to include situations "when an alleged infringer conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance." While this new standard goes a long way in closing the liability loophole in divided infringement, a gap may still persist with respect to medical diagnostics, and it remains to be seen how courts will apply this new standard.

The fifth Note<sup>8</sup> critiques how recent Supreme Court and Federal Circuit opinions have eviscerated patent eligibility for molecular diagnostic technologies, exemplified by *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*<sup>9</sup> This Note explores the origins of the judicially created "law of nature/natural phenomena" exceptions to statutory patent-eligible subject matter and examines how the courts have expanded them to limit, jeopardize or foreclose patent eligibility for molecular diagnostics specifically and practical applications of new scientific discoveries broadly.

<sup>3.</sup> Cassandra E. Havens, Note, Teva v. Sandoz: *The Supreme Court Rejects Millennial Federal Circuit's "Clearly Erroneous" Review Standard*, 31 BERKELEY TECH. L.J. 399 (2016).

<sup>4. 135</sup> S. Ct. 831, 835 (2015).

<sup>5.</sup> Benjamin C. Li, Note, *The Global Convergence of FRAND Licensing Practices: Towards "Interoperable" Legal Standards*, 31 BERKELEY TECH. L.J. 429 (2016).

<sup>6.</sup> Jingyuan Luo, Note, Concluding the Akamai Chapter of Divided Infringement: Is the Liability Loophole Closed?, 31 BERKELEY TECH. L.J. 467 (2016).

<sup>7. 797</sup> F.3d 1020, 1023 (Fed. Cir. 2015) (en banc).

<sup>8.</sup> Philip Merksamer, Note, Ariosa Diagnostics v. Sequenom: *Metastasis of Mayo and Myriad and the Evisceration of Patent Eligibility for Molecular Diagnostics*, 31 BERKELEY TECH. L.J. 495 (2016).

<sup>9. 788</sup> F.3d 1371 (Fed. Cir.), reh'g denied, 809 F.3d 1282 (Fed. Cir. 2015).

The sixth Note<sup>10</sup> examines the impact of the Supreme Court's decision in *Commil USA*, *LLC v. Cisco Systems*, *Inc.*<sup>11</sup> on the standard for willful patent infringement. Concluding that the holding mandates a reexamination of the current standard for willfulness, the Note explores the evolution of inducement liability—the focus of *Commil*—and its interplay with the scienter standard for willful infringement.

The seventh Note<sup>12</sup> examines recent Federal Circuit cases dealing with the issue of when a district court judgment is final enough to have preclusive effect. The Note asserts that the Federal Circuit's narrow interpretation of finality is problematic, increasing gamesmanship in patent cases as it incentivizes alleged infringers to keep cases alive until they obtain a favorable PTO decision that might trump the non-final district court judgment of infringement.

The eighth Note<sup>13</sup> argues that the Federal Circuit in *Bristol-Myers Squibb Co. v. Teva Pharmaceuticals USA*, *Inc.*<sup>14</sup> overlooked an issue that is especially relevant to chemical and pharmaceutical inventions: the realistic assessment of "reasonable expectation of success," or RES. In view of the complexity and unpredictability of the chemical arts, courts should narrowly define RES to incentivize innovation while rewarding only inventions that would not have arisen in the normal course of research.

The ninth Note<sup>15</sup> examines the evolution of the *Noerr-Pennington* doctrine and petitioning immunity, focusing on how these protections can preempt state-law liability for misleading statements in demand letters. The Note argues that reform to current Federal Circuit precedent would negate the perceived need for state anti-patent troll statutes because patent owners making such statements would be liable under state unfair competition or consumer protection laws.

<sup>10.</sup> Nate Ngerebara, Note, Commil v. Cisco: Implications of the Intent Standard for Inducement Liability on Willfulness, 31 BERKELEY TECH. L.J. 535 (2016).

<sup>11. 135</sup> S. Ct. 1920, 1926 (2015).

<sup>12.</sup> Peggy P. Ni, Note, *Rethinking Finality in the PTAB Age*, 31 BERKELEY TECH. L.J. 557 (2016).

<sup>13.</sup> Christelle K. Pride, Note, Misguided Panic and Missed Opportunity for Pharmaceutical Inventions: How Unexpected Results Eclipsed Reasonable Expectation of Success in BMS v. Teva, 31 BERKELEY TECH. L.J. 587 (2016).

<sup>14. 769</sup> F.3d 1339, 1341 (Fed. Cir. 2014) (per curiam).

<sup>15.</sup> Eric J. Riedel, Note, Patent Infringement Demand Letters: Does Noerr-Pennington or the First Amendment Preempt State-Law Liability for Misleading Statements?, 31 BERKELEY TECH. L.J. 623 (2016).

The tenth Note<sup>16</sup> examines the Federal Circuit's decision in *Amgen Inc.* v. Sandoz Inc.<sup>17</sup> where the court ruled that the "patent dance" described in the Biologics Price Competition and Innovation Act (BPCIA) for biosimilar drug approval was not mandatory. After reviewing the BPCIA's language, structure, and legislative history, the Note concludes that Congress intended the patent dance to be mandatory to maintain an efficient and effective patent dispute resolution process for biosimilar and original biologic drug makers.

The eleventh Note<sup>18</sup> examines the development of case law in functional claiming, starting from the establishment—in *Lighting World v. Birchwood Lighting*<sup>19</sup>—of the strong presumption against invocation of § 112(f) on claim limitations lacking the term "means" and moving through *Williamson v. Citrix Online, LLC (Williamson II)*,<sup>20</sup> where the Federal Circuit overruled the strong presumption. This Note also explores issues in the case law left unresolved by *Williamson II*, and proposes a framework for determining whether a claim limitation invokes § 112(f) in view of common law developed during the tenure of the strong presumption.

#### II. COPYRIGHT LAW

The first Note<sup>21</sup> in this Section provides a comprehensive overview of the evolution of music licensing since the early twentieth century, with an emphasis on U.S. copyright law's fragmented development in this area. There are many common criticisms of the contemporary legal structure, as well as corresponding proposals to resolve identified flaws. However, this Note argues that the proposed solutions offer insufficient change, and broader statutory reforms would better serve copyright's goal of bringing music owners and music users together in the marketplace.

The second Note<sup>22</sup> surveys the landscape of state law protection for pre-1972 sound recordings (which are not covered by the federal

<sup>16.</sup> Jon Tanaka, Note, "Shall" We Dance? Interpreting the BPCIA's Patent Provisions, 31 BERKELEY TECH. L.J. 659 (2016).

<sup>17. 794</sup> F.3d 1347, 1348 (Fed. Cir. 2015).

<sup>18.</sup> Shong Yin, Note, Williamson v. Citrix Online: A Fundamental Shift and Return to Form in Means-Plus-Function Interpretation, 31 BERKELEY TECH. L.J. 687 (2016).

<sup>19. 382</sup> F.3d 1354 (Fed. Cir. 2004).

<sup>20. 792</sup> F.3d 1339 (Fed. Cir. 2015) (en banc).

<sup>21.</sup> Stasha Loeza, Note, Out of Tune: How Public Performance Rights Are Failing to Hit the Right Notes, 31 BERKELEY TECH. L.J. 725 (2016).

<sup>22.</sup> Christopher J. Norton, Note, *Turtle Power: The Case for Common Law Protection for Pre-1972 Sound Recordings*, 31 BERKELEY TECH. L.J. 759 (2016).

Copyright Act) in the context of the varying approaches courts have taken to lawsuits that ex-members of the 1960s pop group the Turtles have filed in recent years against satellite and Internet broadcasters seeking compensation for the broadcasters' public performances of pre-1972 Turtles recordings without permission or payment. In the absence of congressional action granting pre-1972 recordings some measure of protection under federal copyright law, this Note argues that the most sensible judicial solution for the three circuit courts currently considering the issue would be to rely on common law unfair competition and misappropriation doctrine, rather than state statutory or common law formulations of copyright, to afford pre-1972 recording owners limited remedies to compensate for unauthorized commercial uses of their recordings.

The third Note<sup>23</sup> focuses on the implications of the Ninth Circuit's recent en banc decision in *Garcia v. Google, Inc.*,<sup>24</sup> finding that an actress who appeared for only five seconds in a film had no copyright interest in her performance within the film. While this holding expands copyright ownership jurisprudence to new factual situations involving creative contributions to integrated works, it does not substantially change copyright ownership doctrine and actually aligns with the current practices in the entertainment industry.

### III. TRADEMARK LAW

The Note<sup>25</sup> in this Section discusses the Ninth Circuit's conflicting decisions in *Multi Time Machine v. Amazon*,<sup>26</sup> where a three-judge panel ultimately held the circuit's multifactor, *Sleekcraft* test for likelihood of confusion inapt for use on the Internet. The Note examines the origins of multifactor tests for likelihood of confusion and trademark infringement and argues that, despite their brick-and-mortar origins, multifactor infringement tests remain effective for analyzing confusion and competition on the Internet.

<sup>23.</sup> Diana C. Obradovich, Note, Garcia v. Google: *Authorship in Copyright*, 31 BERKELEY TECH. L.J. 785 (2016).

<sup>24. 786</sup> F.3d 733 (9th Cir. 2015) (en banc).

<sup>25.</sup> Andrea M. Hall, Note, Standing the Test of Time: Likelihood of Confusion in Multi Time Machine v. Amazon, 31 BERKELEY TECH. L.J. 815 (2016).

<sup>26. 804</sup> F.3d 930 (9th Cir. 2015); 792 F.3d 1070 (9th Cir. 2015).

## IV. CYBERLAW AND VENTURE LAW

The first Note<sup>27</sup> in this Section discusses autonomous vehicles, which may see commercial release in as few as two years. The transition to self-driving cars will likely be hampered by regulatory and other legal impediments, and this Note explores a variety of administrative and legislative solutions before suggesting that a uniform set of autonomous vehicle laws is the most practical first step to solving some of these problems.

The second Note<sup>28</sup> examines the recent Second Circuit decision in *United States v. Apple*<sup>29</sup> holding Apple per se liable for price-fixing related to deals it negotiated with book publishers leading up to the launch of its iBooks platform. The Note concludes that the decision to apply the per se rule—rather than the more forgiving rule of reason normally applied to vertical agreements—properly furthered the rationale underlying the per se rule where the court had already determined that Apple had used the vertical contracts to further a horizontal conspiracy.

The third Note<sup>30</sup> reviews the development of net neutrality law in the United States between the 2005 *NCTA v. Brand X*<sup>31</sup> Supreme Court decision and the FCC's 2015 Open Internet Order. After an examination of the Open Internet Order through the lens of historic net neutrality and administrative law jurisprudence, this Note predicts that the Open Internet Order can and will survive legal challenges on such grounds.

The fourth Note<sup>32</sup> examines regulatory issues raised by the prospect of personalized medicine. Specifically, this Note analyzes the legal and policy concerns over the U.S. Food and Drug Administration's recent efforts to regulate laboratory-developed tests, which are key tools necessary for the success of personalized medicine.

The fifth Note<sup>33</sup> discusses the central tension in K-12 education technology ("edtech") between the need to protect student data privacy on

<sup>27.</sup> Jessica S. Brodsky, Note, Autonomous Vehicle Regulation: How an Uncertain Legal Landscape May Hit the Brakes on Self-Driving Cars, 31 BERKELEY TECH. L.J. 851 (2016).

<sup>28.</sup> Zachary C. Flood, Note, Antitrust Enforcement in the Developing E-Book Market: Apple, Amazon, and the Future of the Publishing Industry, 31 BERKELEY TECH. L.J. 879 (2016).

<sup>29. 791</sup> F.3d 290, 340 (2d Cir. 2015).

<sup>30.</sup> Simone A. Friedlander, Note, Net Neutrality and the FCC's 2015 Open Internet Order, 31 BERKELEY TECH. L.J. 905 (2016).

<sup>31. 545</sup> U.S. 967, 974 (2005).

<sup>32.</sup> Sarah Y. Kwon, Note, Regulating Personalized Medicine, 31 BERKELEY TECH. L.J. 931 (2016).

<sup>33.</sup> Dylan Peterson, Note, *Edtech and Student Privacy: California Law as a Model*, 31 BERKELEY TECH. L.J. 961 (2016).

the one hand, and edtech companies' ability to innovate and schools' ability to enhance education on the other. Further, it analyzes whether California's Student Online Personal Information Protection Act would be an effective solution to the current inadequate federal student privacy laws. The Note concludes that while this California law effectively responds to many of the gaps in federal law and successfully updates this outdated body of law, it largely functions as a Band-Aid measure with some shortcomings, and federal reform is needed.

The sixth Note<sup>34</sup> describes the technologies underlying the emerging Internet of Things and examines two related issues—interoperability and threat to privacy and security. This Note recommends that regulators observe market dynamics, promote broad principles, and adopt a "wait and see" approach with regards to both of these issues.

The seventh Note<sup>35</sup> examines employment classification in the sharing economy by analyzing the misclassification suit launched against Uber Technologies, Inc., by its drivers. This Note concludes that a jury is likely to find, based on the current legal classification test, that all Uber drivers in the class action suit are Uber's employees. However, this Note argues that such a blanket result would be inappropriate and advocates that courts or legislatures need to construct a new employment classification test that is tailored to the complex working relationships in the sharing economy.

## V. PRIVACY LAW

The first Note<sup>36</sup> in this Section identifies "exposure" data breaches—those focused on causing victims reputational harm—as the next generation of data security breach. The Note discusses the novel concerns posed by exposure breaches, and proposes adherence to ex ante protocols that may prevent reputational harm before it occurs. More specifically, the Note suggests that state legislatures and the Federal Trade Commission mandate heightened security standards for entities that store personal information as defined according to a modified version of the "public disclosure of private information" privacy law remedy.

<sup>34.</sup> Swaroop Poudel, Note, Internet of Things: Underlying Technologies, Interoperability, and Threats to Privacy and Security, 31 BERKELEY TECH. L.J. 997 (2016).

<sup>35.</sup> Robert L. Redfearn III, Note, Sharing Economy Misclassification: Employees and Independent Contractors in Transportation Network Companies, 31 BERKELEY TECH. L.J. 1023 (2016).

<sup>36.</sup> Yasmine Agelidis, Note, Protecting the Good, the Bad, and the Ugly: "Exposure" Data Breaches and Suggestions for Coping with Them, 31 BERKELEY TECH. L.J. 1057 (2016).

The second Note<sup>37</sup> examines the Third Circuit's decision in FTC v. Wyndham Worldwide Corp.,<sup>38</sup> which is the first case to explicitly uphold the FTC's authority to challenge corporate data security practices as unfair or deceptive. The Note considers whether, in light of constitutional due process requirements and the history of FTC data security enforcement efforts, the agency has provided companies with fair notice of the security standards they must meet. It concludes that the FTC's past complaints and other guidance, but not consent orders, define particular unfair practices in a way that satisfies the fair notice requirement.

The third Note<sup>39</sup> explores the Supreme Court's decision in *Elonis v. United States*,<sup>40</sup> where the Court reversed a conviction for making online threats over the social media platform Facebook. In examining the first true threat case in more than a decade, the Court resolved the issue on narrow statutory grounds. This Note argues that ambiguity in the intent requirement for 18 U.S.C. § 875(c), coupled with the ease with which true threats can be made in the Internet age, suggest that the Court will revisit this issue sooner rather than later.

The final Note<sup>41</sup> examines the Court's decision in *City of Los Angeles v. Patel*,<sup>42</sup> focusing on what the case means for Fourth Amendment searches in the Information Age. The Note argues that despite producing some bright-line rules that limit government overreach, *Patel* unfortunately failed to address key questions regarding the administrative search and special needs doctrines.

<sup>37.</sup> J. William Binkley, Note, Fair Notice of Unfair Practices: Due Process in FTC Data Security Enforcement After Wyndham, 31 BERKELEY TECH. L.J. 1079 (2016).

<sup>38. 799</sup> F.3d 236 (3d Cir. 2015).

<sup>39.</sup> Jing Xun Quek, Note, Elonis v. United States: *The Next Twelve Years*, 31 BERKELEY TECH. L.J. 1109 (2016).

<sup>40. 135</sup> S. Ct. 2001 (2015).

<sup>41.</sup> Maximilian Sladek de la Cal, Note, City of Los Angeles v. Patel: *The Fourth Amendment's "Special Needs" in the Information Age*, 31 BERKELEY TECH. L.J. 1137 (2016).

<sup>42. 135</sup> S. Ct. 2443 (2015).