The Annual Review is a yearly publication of the Berkeley Technology Law Journal that provides a summary of many of the 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 into a particular area of law, discusses a development in that area of law, and offers commentary on that development.

The twenty-three 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 the areas of cyberlaw and privacy. Following the Notes in each area of law, we have included Additional Developments, which are brief descriptions of important developments not addressed in the Notes.

I. PATENT LAW

This year's Annual Review covers a wide range of developments in the area of patent law. Our first Note discusses patent eligibility after *Bilski v. Kappos*. The *Bilski* Court reviewed the scope of the word “process” in § 101 of the Patent Act. The Court held that business methods are patentable but that the specific patent at issue was unpatentable under § 101. Building up to the *Bilski* decision, the Note surveys case law and charts the relative strictness of patent eligibility. The Note then analyzes where the *Bilski* decision falls within this spectrum of patent strictness. The Note then compares recent Board of Patent Appeals decisions with post-*Bilski* Federal Circuit decisions to show how these entities are applying *Bilski*.
The second Note examines the backlog at the United States Patent and Trademark Office ("USPTO") and how new programs by the USPTO have addressed this. The Patent Office currently faces a backlog of over 700,000 patent applications—a number that has been trimmed by 50,000 since 2009. In June 2010, the Director of the USPTO announced a proposal designed to "provide applicants greater control over the speed with which their applications are examined and promote greater efficiency in the patent examination process." The Note highlights the USPTO's past programs meant to address the backlog and specifically analyzes this newly announced Three-Track Proposal. The Note suggests improvements to the Three-Track Proposal and concludes that this is a positive step towards reducing the USPTO's patent backlog.

The next Note highlights the growing prominence of the International Trade Commission ("ITC") as a patent litigation forum. The Note examines the founding of the ITC as a means of protecting American industry at the borders. Section 337 of the Tariff Act of 1930 grants the ITC power to initiate investigations after a complaint is filed. Investigations may result in the Commission granting exclusion orders preventing infringing articles from entering the United States. One of the requirements to bringing an ITC complaint is that the patent owner must have a domestic industry within the United States. The Note tracks the development of this requirement and finds that legislation and ITC jurisprudence have eased the traditional domestic industry burden on complainants. The Note suggests that the softening of this requirement allows non-practicing entities an easier path to bring actions in this forum. Given the bluntness of an exclusion order, the Note suggests that any changes to the domestic industry requirement need to strike a balance between protecting actual industries in the United States and protecting the patent owner's intellectual property rights.

The fourth Note examines the "control or direction" requirement for joint patent infringement. The Federal Circuit has held that when two or more parties cooperate—and their combined acts would constitute

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infringement—there is no “joint infringement” unless the patent holder can prove that one party exercised “‘control or direction’ over the entire process such that all steps of the process can be attributed to the controlling party...”8 The “control or direction” rule originated in BMC Res., Inc. v. Paymentech, L.P.9 The BMC court acknowledged that parties could circumvent this by entering into an “arms-length agreement” but thought that this could be solved with proper claim drafting.10 A recent case held that parties satisfy the “control or direction” test if they are in a principal-agent relationship or contractually obligated to perform all the steps.11 The Note argues that this standard is too high for joint infringement and is unsupported by precedent. The Note further suggests three solutions courts might adopt to ensure that parties cannot avoid liability for joint infringement by being at “arms-length” in their business dealings.

The next Note12 focuses on the problems of using “black-box” or general verdicts for issues of patent obviousness. The Note argues that the question of obviousness is too technically complicated to answer with a simple “yes” or “no” for two reasons. The first is that nonobviousness attempts to formulate an abstract inquiry—the measure of technical accomplishment or non-triviality. The second is that jurors and judges are asked to measure the level of technical accomplishment of the patent even though they may be unfamiliar with, or have little background in, the technology involved. The Note argues that allowing general verdicts for issues of obviousness is ill-advised and that the Federal Circuit should require special interrogatories for issues of obviousness. The Note then explores the risk of extralegal factors that might influence patent jury decisions on obviousness. The Note concludes that the Federal Circuit has the legal authority to mandate special interrogatories and that the risk of these extralegal factors should cause the court to exercise this authority.

The sixth Note13 discusses the Federal Circuit’s recent decision in Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.14 Cardiac Pacemakers analyzed 35 U.S.C. § 271(f), which deals with supplying “components” of a patented invention

9. 498 F.3d 1373 (Fed. Cir. 2007).
10. Id. at 1381.
14. 576 F.3d 1348 (Fed. Cir. 2009).
from the United States to be combined and utilized outside of the country.\textsuperscript{15} Section 271(f) codified the Supreme Court's decision in Deepsouth Packing Co. \textit{v.} Laitram Corp.,\textsuperscript{16} a case that dealt with a patented shrimp deveining machine. The infringer in Deepsouth Packing sold and shipped the machine abroad in parts which could be assembled in less than an hour.\textsuperscript{17} \textit{Cardiac Pacemakers} explores § 271(f) as it relates to method patents. The Note analyzes the decision and finds that the Federal Circuit has excluded method patents from § 271(f) liability. The Federal Circuit concluded that components of a method patent cannot be "supplied" abroad.\textsuperscript{18} The Note then explores § 271(f) and analyzes it under three different theories of statutory interpretation, offering a new version of the statute to bring method patents within § 271(f) liability.

The next Note\textsuperscript{19} discusses diagnostic method patents. Diagnostic method patents attempt to claim exclusive rights to the correlation between a patient's medical data and a medical prognosis. The patentability of diagnostic method patents under 35 U.S.C. § 101 is still an unresolved question—three cases are currently litigating it. The Note starts with an exploration of patentable subject matter and the current controversy of diagnostic method patents. The Note then discusses modern diagnostic medicine and the public policy concerns with granting diagnostic method patents. The Note points to four public policy considerations that support granting diagnostic method patents and concludes that granting patents on diagnostic correlations is in the public interest.

The eighth Note\textsuperscript{20} explores the issue of patent licenses arising from litigation after \textit{ResQNet.com Inc. v. Lansa Inc.}\textsuperscript{21} These licenses are commonly referred to as settlement licenses or litigation licenses. Settlement licenses often depend on many factors including the technology involved, the competitive position of the parties, the anticipated cost of further litigation, and the relative strength of each party's claims. As a result, courts have traditionally deemed settlement licenses inadmissible as evidence due to the question of their probative value. \textit{ResQNet} brought the admissibility of these licenses back into question. The Note begins with a discussion of the discoverability and admissibility of litigation-induced licenses and the

\begin{itemize}
  \item 406 U.S. 518 (1972).
  \item \textit{Id.} at 524.
  \item \textit{Cardiac Pacemakers}, 576 F.3d at 1364.
  \item Asher Hodes, Note, \textit{Diagnosing Patentable Subject Matter}, 26 BERKELEY TECH. L.J. 225 (2011).
  \item 594 F.3d 860 (Fed. Cir. 2010).
\end{itemize}
underlying negotiations. The Note then reviews ResQNet and subsequent district court cases interpreting that decision. The Note concludes that courts should determine the admissibility of settlement licenses on a case-by-case basis. It finds that the increased discovery of settlement induced licenses and the admissibility of these licenses in court conflicts with a policy of encouraging settlements to litigation.

The next Note analyzes gene patents and the patentability of the BRCA gene. The Supreme Court validated genetic patents for man-made genetic organisms in Diamond v. Chakrabarty. The Chakrabarty court held that a bacterium created by combining pieces of naturally occurring bacteria into a new organism was patentable under 35 U.S.C. § 101, finding that the bacterium was a “product of human ingenuity” and was “not nature’s handiwork but [the patentee’s] . . .” Although this ruling can be applied to manufactured genes, the question of patents on naturally occurring genes is not settled. The USPTO routinely issues patents on human DNA sequences, reasoning that the material has been purified from its natural form through human intervention. The Southern District of New York, in Ass’n of Molecular Pathology v. USPTO, recently addressed the question of the patentability of DNA sequences and found a patent on the BRCA gene invalid. The court found that even in its purified form, the BRCA gene maintains essentially the same structure and function as its natural form. The Note then explores the traditional rationales for, and concerns of, gene patents and their treatment under the AMP holding. The Note concludes that limiting gene patents to the application of the gene, and not the gene sequence itself, may address these concerns.

The final Patent law Note discusses the topic of patent damage awards and reasonable royalties. Under 35 U.S.C. § 284, a successful patent litigant shall be awarded “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.” One approach to the reasonable royalty calculation is hypothetical negotiations; an attempt to determine what willing parties would have agreed upon had they negotiated a license prior to the infringement. The Federal Circuit, in Lucent Technologies Inc. v. Gateway,
Inc., vacated a $358 million jury award and closely scrutinized the district court’s application of the hypothetical negotiations approach. The Note explores the history of patent damages and then looks at the Lucent case and post-Lucent decisions. The Note argues that these cases have both strengthened the evidentiary standards for introducing past licenses for royalty calculation and asked courts to exclude questionable expert testimony concerning damages. The Note concludes that judges need to be the gatekeepers for reasonable royalty damages and ensure that these calculations are accurate and useful to the court.

II. COPYRIGHT LAW

The first Note in the Copyright section discusses the implications of the Second Circuit’s finding that albums are compilations in Bryant v. Media Right Productions, a 2010 case concerning statutory damages for the alleged infringement of the copyrights in two musical albums. Bryant followed the language of the Copyright Act in deciding that albums are “compilations” for the purposes of determining statutory damage awards, but the court failed to acknowledge that doing so would also have other consequences, namely that albums would now be considered works made for hire. Musicians could begin losing the ability to terminate transfers of their music, in direct conflict with Congress’s purpose behind the termination-of-transfer and work-made-for-hire doctrines. The Note concludes that the legislative history of the Copyright Act gives reason to question the Second Circuit’s labeling of an album as a “compilation.”

The second Copyright law Note discusses the recent Viacom v. YouTube decision finding that the DMCA’s safe harbor provision protects YouTube from Viacom’s claims of copyright infringement. The Note critiques the court for ignoring instances of YouTube’s specific knowledge of infringement on its site and choosing the blunt instrument of DMCA takedown notices over content filtering as the method of choice for “red flag” notification. The Note argues that summary judgment should not have been granted as there was a genuine issue of material fact as to whether

29. 580 F.3d 1301, 1308 (Fed. Cir. 2009).
30. Wyatt Glynn, Note, Musical Albums as “Compilations”: A Limitation on Damages or a Trojan Horse Set to Ambush Termination Rights?, 26 BERKELEY TECH. L.J. 375 (2011).
31. 603 F.3d at 141.
32. Id. at 140.
YouTube was entitled to the § 512(c) safe harbor. The Note further argues that the consequence of the decision is a strict notice and takedown regime because the court suggested that was the only way for a “red flag” to be triggered. Furthermore, the Note argues that the Viacom decision results from a DMCA that is unsustainable in a Web 2.0 world.

The third Note explores the tension between property rights and public access rights at issue in the recent Apple, Inc. v. PsyStar Corp. litigation concerning Apple’s efforts to contractually preclude users from installing its operating system on any non Apple-branded hardware. The court ultimately decided that Apple’s use of a licensing agreement to ensure that its operating system was only installed on Apple-branded hardware was not a misuse of copyright. The copyright misuse doctrine renders a copyright unenforceable in situations where a copyright is used to “secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant.” Although courts have been hesitant to adopt copyright misuse, the Note argues that the doctrine should have greater bearing on future cases that require a balancing of the needs of public access against the property rights of platform owners. It concludes that a re-aligned copyright misuse doctrine in today’s technological world might restore the balance between the intellectual property regimes, and also the balance between intellectual property creators and intellectual property consumers.

The next Note in the Copyright law section explores courts’ interpretations of the anti-circumvention clause of the DMCA and how the various legal standards apply to efforts to circumvent technological protection measures (“TPMs”). Since courts do not agree on the legal standard to apply in anti-circumvention cases, it is unclear to many copyright owners whether their TPMs “effectively control access” under the various legal standards. This Note describes and categorizes the various legal standards that courts have used to decide anti-circumvention cases, and

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then it undertakes a technical examination of the most common technological measures used to protect copyrighted material. Based on these technical specifications, the Note offers guidance on how each legal standard may be applied to the technological measures and assesses which are likely to constitute valid TPMs under each test.

The last Note\textsuperscript{42} in the Copyright section analyzes the Copyright Office's recent issuance of the final rule\textsuperscript{43} in the fourth round of the triennial rulemaking process under the DMCA.\textsuperscript{44} The Note argues that the final rule reveals how agency regulation can re-infuse flexibility in both the DMCA specifically and copyright law generally, which has increasingly adopted the regulatory model. It discusses how the breadth reflected in the latest round of triennial rulemaking—particularly in the number, scope, and importance of exemptions—could be combined with other reforms, such as modifying the rulemaking process and expanding the authority of the Copyright Office, to serve as a model for implementing agency regulation in copyright law.

III. TRADEMARK LAW

The first Note\textsuperscript{45} in the Trademark law section addresses the problem of trademark infringement of luxury brands on eBay.com ("eBay"). The Note examines the Second Circuit's decision in \textit{Tiffany v. eBay} that generalized knowledge is insufficient to impose upon eBay an affirmative duty to remedy the counterfeiting problem on its website.\textsuperscript{46} It argues that this approach to eBay's secondary liability fails to provide a reasonable template for addressing misaligned interests and complex issues of technological change. Given evidence that eBay's efforts at combating infringement have not been effective, this Note proposes that courts adopt a balancing framework to determine secondary trademark liability that would promote the integrity of the online marketplace while allowing room for the public to engage in legitimate secondary market activity.

\begin{itemize}
\item[45.] Michelle Leu, \textit{Authenticate This: Revamping Secondary Trademark Liability Standards to Address a Worldwide Web of Counterfeits}, 26 BERKELEY TECH. L.J. 591 (2011).
\item[46.] Tiffany (NJ) Inc. v. eBay, Inc., 600 F.3d 93, 109 (2d Cir. 2010).
\end{itemize}
The second Note in the Trademark section discusses two recent circuit court decisions interpreting the standard for trademark dilution by tarnishment created by the Trademark Dilution Revision Act ("TDRA"). It compares the vastly divergent approaches taken by the Second and Sixth Circuits in Starbucks Corp. v. Wolfe's Borough Coffee, Inc. and V Secret Catalogue, Inc. v. Moseley to the standard for dilution by tarnishment. The Note highlights the extent of the judicial discretion created by the statute's ambiguity over what a plaintiff must show in order to prove likelihood of tarnishment. While the Second Circuit in Starbucks applied the dilution by tarnishment standard outlined in the TDRA in a relatively straightforward manner, the Sixth Circuit created an unprecedented "rebuttable presumption" of tarnishment to be applied in cases where the defendant has used the plaintiff's mark in association with sex-related products. In comparing the two decisions, the Note argues that the Second Circuit's application of the federal dilution by tarnishment standard more accurately reflects the intent of Congress as revealed by the legislative history of the TDRA.

The third Trademark law Note discusses the issue of contributory liability for trademark infringement in cases involving online service providers ("OSPs"). The Note focuses on the recent case of Rosetta Stone v. Google Inc., in which the federal district court in Eastern Virginia granted summary judgment for Google after determining that Google's online keyword advertising program did not violate the Lanham Act. The Note argues that the opinion highlights the inadequacy of the current "control" test for contributory trademark liability in providing courts guidance, especially given that OSPs are not always easily conceptualized as either

49. Starbucks Corp. v. Wolfe's Borough Coffee, Inc., 588 F.3d 97 (2d Cir. 2009).
51. See Starbucks, 588 F.3d at 110–12.
52. Moseley, 605 F.3d at 385.
55. Id. at *2–4.
products or services. The Note proposes that courts adopt a tailored test for contributory trademark infringement, arguing that a set of factors similar to those used by the district court in *Tiffany v. eBay* could be developed to provide guidance to courts considering claims involving OSPs.

The last Trademark law Note discusses two recent federal court cases concerning the liability of payment intermediaries for trademark infringing merchants, *Perfect 10, Inc. v. Visa International Service Ass'n* and *Gucci America, Inc. v. Frontline Processing Corp.* In *Perfect 10*, the Ninth Circuit declined to extend secondary copyright and trademark liability to the payment intermediaries. The *Frontline* court, however, made waves by issuing the first ruling to find that payment intermediaries may be liable for secondary trademark infringement. The Note argues that *Frontline* is not as shocking a departure from established case law as some commentators have posited, and that the *Frontline* court's careful consideration of the background of the credit card industry and the realities of the internet marketplace is a superior analysis to the Ninth Circuit's majority's in *Perfect 10*.

### IV. CYBERLAW

The Note in the Cyberlaw section of the Annual Review discusses recent developments in the net neutrality debate—mainly the D.C. Circuit's decision in *Comcast Corp. v. Federal Communications Commission*, which invalidated the FCC's jurisdiction over broadband internet service providers ("ISPs"), and the FCC's subsequent adoption of net neutrality rules that require transparency and forbid most blocking and discrimination. It further explores theoretical, legal, and technical definitions of net neutrality, finding that an operational legal definition of net neutrality must encompass not only the theoretical principles underlying the term but also the technical realities of the Internet. The Note argues that debate over the definition of net neutrality and reasonable network management is best resolved through

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58. 494 F.3d 788 (9th Cir. 2006).
59. 721 F. Supp. 2d 228 (S.D.N.Y. 2010).
60. *Perfect 10*, 494 F.3d at 793.
the FCC's enforcement of full ISP transparency and proposes a two-step analysis to determine whether a given practice should be considered reasonable or unreasonable network management.

V. PRIVACY LAW

The first Privacy Note discusses the Ninth Circuit's recent decision in In re Anonymous Online Speakers, which is the first circuit court opinion addressing the standard for granting subpoena or discovery orders for unmasking anonymous speakers in online speech cases. The Note critiques the Ninth Circuit for failing to distinguish between internet infrastructure and online platforms, services, and applications, and inaccurately characterizing the effect of these various online spaces on the accuracy, verifiability, and correct-ability of anonymous speech. The Note argues that regardless of the standard employed in balancing the rights of the anonymous online speakers with the rights of allegedly harmed plaintiffs, courts cannot afford to misunderstand the nature of the Internet nor, by extension, the nature of speech occurring in online contexts. This Note concludes that an enhanced understanding of online speech and attention to the context surrounding online spaces will better equip courts to balance the rights of anonymous speakers and the rights of harmed parties.

The second Note in the Privacy law section of the Annual Review addresses the imbalance between the public's interest in privacy protection and law enforcement's legitimate interest in evidence gathering activities that has resulted with the rise of new electronic communication and surveillance technologies, specifically the cell phone and GPS tracking. It discusses recent circuit court decisions that suggest a recent trend by the federal courts towards curbing the government's ability to gather personal electronic information through drag-net type surveillance without a warrant or notice. In affirming these decisions, the Note argues that unfettered warrantless access to such information by law enforcement is an encroachment on our basic Fourth Amendment rights due to the intrusive and private nature of the information obtained. It concludes by proposing that courts apply a totality

67. United States v. Maynard, 615 F.3d 544 (D.C. Cir. 2010); In re United States for an Order Directing a Provider of Elec. Commc'n Serv. to Disclose Records to the Gov't, 620 F.3d 304 (3d Cir. 2010); United States v. Pineda-Moreno, 591 F.3d 1212 (9th Cir. 2010).
of the information theory to warrantless GPS and historical and real-time cell phone tracking by law enforcement agencies, and that they return to fundamental Fourth Amendment principles to safeguard stored electronic communications.

The third Privacy law Note\textsuperscript{68} discusses the Court’s recent decision concerning the Fourth Amendment’s protection of sensitive information shared using new communication technologies in public workplaces, \textit{Ontario v. Quon}\textsuperscript{69}. This Note reviews the Fourth Amendment’s development and its application to the \textit{Quon} case, and it draws on recent privacy scholarship to discuss gaps in the Court’s analysis and application of the Fourth Amendment. The Note considers three scholarly perspectives on privacy that enhance an understanding of \textit{Quon}’s gaps and suggest that the Fourth Amendment can and should adopt stronger protection for sensitive information.

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\item \textsuperscript{68} Miles Palley, Note, Ontario v. Quon: In Search of a Reasonable Fourth Amendment, 26 BERKELEY TECH. L.J. 859 (2011).
\item \textsuperscript{69} Ontario v. Quon, 130 S. Ct. 2619 (2010).
\end{itemize}