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When Tigers Bare Teeth: A Qualitative Study of University Patent Enforcement

Jacob H. Rooksby

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WHEN TIGERS BARE TEETH: A QUALITATIVE STUDY OF UNIVERSITY PATENT ENFORCEMENT

*Jacob H. Rooksby**

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* Assistant Professor of Law, Duquesne University School of Law. Research for this article was made possible by a fellowship from the Association of University Technology Managers Foundation, named in Howard Bremer’s honor. Fellowship recipients received an honorarium and complimentary registration and travel to the 2011 annual meeting of the Association of University Technology Managers. No one from the funding organization sought or received prior review of this article. All conclusions and any errors are entirely my own.

“Universities are generally not inclined to litigate. . . . A lot of private sector companies, the big ones, look at universities as toothless tigers, because they are not going to assert their patent rights.” –Howard Bremer¹

I. INTRODUCTION

The pursuit of patents is a key avenue of economic development and revenue generation for American research universities, and one with significant policy implications for higher education.² In a time of shifting funding models for higher education,³ the \$1.8 billion dollars American universities generated in revenues in 2011 from licensing their patents⁴ makes patenting an attractive candidate for further university attention and resource investment. Spurred in part by the Bayh-Dole Act of 1980,⁵ research universities across the country have created vast institutional apparatuses—typically centered in technology transfer offices (“TTOs”)—to help move ideas invented in the laboratory and

1. Transcribed Interview with Howard Bremer, Emeritus Patent Counsel, Wisconsin Alumni Research Foundation, in Las Vegas, Nev. (Mar. 1, 2011) (on file with author). An architect of the Bayh-Dole Act of 1980, Howard Bremer served for over forty years as patent counsel to the Wisconsin Alumni Research Foundation (the patent and licensing organization affiliated with the University of Wisconsin-Madison, known within the industry as WARF).

2. See CORYNNE MCSHERRY, WHO OWNS ACADEMIC WORK? BATTLING FOR CONTROL OF INTELLECTUAL PROPERTY (2001); ROGER L. GEIGER, KNOWLEDGE AND MONEY: RESEARCH UNIVERSITIES AND THE PARADOX OF THE MARKETPLACE (2004).

3. See, e.g., E. Gordon Gee, *Colleges Must Find Innovative Ways to Finance Their Missions*, CHRON. HIGHER EDUC. (Oct. 30, 2011), <http://chronicle.com/article/Colleges-Must-Find-Innovative/129568/> (noting that state support of higher education as a percentage of total operating budgets will never return to pre-2000 levels); William R. Doyle & Jennifer A. Delaney, *Higher Education Funding: The New Normal*, 41 CHANGE: THE MAG. OF HIGHER LEARNING 60-62 (2009) (same).

4. See Goldie Blumenstyk, *Universities Report \$1.8-Billion in Earnings on Inventions in 2011*, CHRON. HIGHER EDUC. (Aug. 28, 2012), <http://chronicle.com/article/University-Inventions-Earned/133972/> (reporting that 157 research universities received approximately \$1.8 billion in licensing revenues in fiscal year 2011).

5. Signed into law by President Carter on December 12, 1980, the Bayh-Dole Act added a chapter to the nation’s patent laws that allows universities to retain ownership of faculty inventions that are discovered in the course of federally funded research. Originally introduced as the University and Small Business Patent Procedures Act, the Bayh-Dole Act was named in honor of its bi-partisan sponsors, former Senator Birch Bayh (D-IN) and former Senator Bob Dole (R-KS). For more information on this “remarkably important piece of science policy legislation,” JONATHAN R. COLE, THE GREAT AMERICAN UNIVERSITY: ITS RISE TO PREMINENCE, ITS INDISPENSABLE NATIONAL ROLE, WHY IT MUST BE PROTECTED 163 (2009), see Rebecca S. Eisenberg, *Public Research and Private Development: Patents and Technology Transfer in Government-Sponsored Research*, 82 VA. L. REV. 1663 (1996); Sean M. O’Connor, *Mistaken Assumptions: The Roots of Stanford v. Roche in Post-War Government Patent Policy* (Mar. 15, 2012) (unpublished Univ. of Wash. Sch. of Law Research. Paper No. 2012-05), available at <http://ssrn.com/abstract=2024631>.

classroom into commercial application.⁶

A patent is a government-granted right that gives its holder the ability to exclude others from manufacturing, using, selling, offering for sale, or importing any product or process claimed by the patent for twenty years from the date of application.⁷ Patents are notoriously expensive to obtain and even more expensive to enforce.⁸ Because patents are not self-enforcing, owners of them face pressure to pursue infringers if they wish to maintain the market exclusivity provided by their patent.⁹ An infringed patent quickly loses value if the owner does not seek to end the infringement by suing the infringer in the hope of obtaining a court order enjoining the infringement and awarding lucrative damages to the patent owner. In this way, to some extent every patent's value flows from the threat of litigation.¹⁰

Yet despite the increasing importance of patents in generating revenue for research universities,¹¹ to date little scholarly attention has been given to the considerations that influence universities to enforce their patents through pursuing infringement litigation.¹² This article describes one of the first focused studies of university behavior in this

6. See generally DAVID C. MOWERY ET AL., *IVORY TOWER AND INDUSTRIAL INNOVATION: UNIVERSITY-INDUSTRY TECHNOLOGY TRANSFER BEFORE AND AFTER THE BAYH-DOLE ACT IN THE UNITED STATES* (2004) (providing a detailed history of the Bayh-Dole Act, TTOs, and patenting by universities in the United States).

7. 35 U.S.C. § 271 (2010). The right to exclude is central to the concept of a patent. Professor Owen-Smith analogizes patents to “fences in the sense that they offer limited monopoly rights to the ‘plot’ of knowledge their claims demarcate.” Jason Owen-Smith, *Trends and Transitions in the Institutional Environment for Public and Private Science*, 49 *HIGHER EDUC.* 91, 94 (2005).

8. Cf. Jean O. Lanjouw & Mark Schankerman, *Characteristics of Patent Litigation: A Window on Competition*, 31 *RAND J. ECON.* 129, 129 (2001).

9. See, e.g., Owen-Smith, *supra* note 7, at 94 (noting that “the efficacy of a patent depends on its owners’ ability to police their property”); Alexander Poltorak, *Thar’s Gold in Them Thar Patents: Why It Pays to Protect Patent Portfolios*, 12 *UNIV. BUS.* 18, 23 (2009) (noting that “[a]lthough a patent is a right to exclude others, it doesn’t come with its own police.”).

10. James Bessen & Michael J. Meurer, *Lessons for Patent Policy from Empirical Research on Patent Litigation*, in *INTELLECTUAL PROPERTY AND INFORMATION WEALTH: ISSUES AND PRACTICES IN THE DIGITAL AGE* 199-226, 205 (Peter K. Yu ed., 2007) (“the patent premium flows from patent litigation or, more typically, the threat of litigation”).

11. See generally DEREK C. BOK, *UNIVERSITIES IN THE MARKETPLACE: THE COMMERCIALIZATION OF HIGHER EDUCATION* 57-78 (2003); BURTON ALLEN WEISBROD, JEFFREY P. BALLOU & EVELYN DIANE ASCH, *MISSION AND MONEY: UNDERSTANDING THE UNIVERSITY* 149-161 (2008); GEIGER, *supra* note 2, at 180-231.

12. But see Margo A. Bagley, *Academic Discourse and Proprietary Rights: Putting Patents in Their Proper Place*, 47 *B.C. L. REV.* 217, 218-19 (2006) (in addition to “the growth in patent-related litigation involving universities,” identifying “the stifling of discourse and the erosion in the norms of sharing and colloquy historically associated with the scholarly enterprise” as costs related to the gains to universities from engaging in technology transfer).

realm, taking a qualitative approach toward building understanding of assertive university patent enforcement from the perspective of a small but important sample of decision-makers at universities that recently asserted their patents. Findings provide unique insights into the complex relationship between universities and their licensees, difficulties inherent in university commercialization efforts, and how universities view their simultaneous pursuits of mission and money through patents. Specific revelations and suggestions flowing from the study include the following:

- Litigation As Mission-Enhancing: Some universities view participation as plaintiffs in patent infringement litigation as condoned or even mandated by their research and commercialization missions, despite what some critics view as the activity's incompatibility with the notion of a university's public-serving mission.
- Money As Motivator: Revenue generation is often a principal motivator for universities that choose to enforce their patents through infringement litigation, even though industry literature only indirectly touts litigation's revenue-generating potential.
- Structural Deterrents: The high cost of legal fees, concern for being viewed as overly litigious, and reputational risks related to contingency fee arrangements with outside law firms provide disincentives for some universities contemplating pursuit of patent infringers.
- Fear of Retribution: The identity of would-be defendants may cause some institutions to abandon pursuit of their infringement claims out of concern for retribution to the university, particularly with respect to sponsored research funding.
- Litigation Realities Driving Licensing Decisions: Concern for the responsibility and costs involved in litigating non-exclusively licensed patents may lead some institutions to favor an exclusive licensing strategy for their patents, on the belief that doing so will save them money and may even spare their involvement as a plaintiff in any infringement action.
- Litigating Unlicensed Patents: Although many universities may be hesitant to litigate unlicensed patents, shrewd companies have devised a way for them to turn unlicensed patents into putatively licensed ones, thereby contravening the Bayh-Dole Act's purposes and masking the character of what some may view as speculative enforcement activity.

In view of its content, this article should be of interest to a variety of audiences, including but not limited to the following:

- University Technology Transfer Professionals: TTO professionals represent the primary university doors through which industry contact

and commercialization occur.¹³ As such, controversies or discussions that may give rise to patent infringement litigation are more likely to involve or emanate from these offices than they are other sectors of the university. This article provides salient description of how five prominent TTOs frame and approach such conflicts. The policy concerns and considerations highlighted here provide fodder for further discussion and reflection on the activity and the possible development of industry best practices concerning patent enforcement.

- **Scholars:** While the costs and consequences of university involvement in technology transfer garner perennial scholarly attention, such treatment typically focuses on patent licenses, patent applications, and royalty streams.¹⁴ With the current influence of entrepreneurialism on higher education, more attention is being given to university start-ups, spin-offs, and the efficacy of the Bayh-Dole system in creating jobs and spurring regional economies.¹⁵ This article breaks new ground by providing much needed investigation into an overlooked arena of the university commercialization enterprise. Scholars interested in empirical studies of patent litigation, complex institutional behavior, and technology transfer and commercialization will find this article's approach and findings useful for guiding further inquiry and analysis.
- **Policy Makers:** America's patent system has received no shortage of attention lately from lawmakers and educational policy leaders alike. Indeed, many universities and higher education industry groups

13. See SHEILA SLAUGHTER & GARY RHOADES, *ACADEMIC CAPITALISM AND THE NEW ECONOMY: MARKETS, STATE, AND HIGHER EDUCATION* 23 (2004) (identifying TTOs as "interstitial organizations" that connect markets with higher education).

14. See, e.g., Joshua B. Powers, *Commercializing Academic Research: Resource Effects on Performance of University Technology Transfer*, 74 J. OF HIGHER EDUC. 26 (2003); Joshua B. Powers & Eric G. Campbell, *University Technology Transfer: In Tough Economic Times*, CHANGE: THE MAG. OF HIGHER LEARNING, Nov.-Dec. 2009, at 43-47; Jerry G. Thursby, Richard Jensen, & Marie C. Thursby, *Objectives, Characteristics and Outcomes of University Licensing: A Survey of Major U.S. Universities*, 26 J. TECH. TRANSFER 59 (2001); and Jerry G. Thursby & Marie C. Thursby, *Who Is Selling the Ivory Tower? Sources of Growth in University Licensing*, 48 MGMT. SCI. 90 (2002).

15. See generally Donald S. Siegel & Phillip H. Phan, *Analyzing the Effectiveness of University Technology Transfer: Implications for Entrepreneurship Education*, in 16 ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION, & ECON. GROWTH (Gary Libecap ed., 2005); ROBERT E. LITAN & ROBERT M. COOK-DEEGAN, *RULES FOR GROWTH: PROMOTING INNOVATION AND GROWTH THROUGH LEGAL REFORM* (2011); Letter from Mary Sue Coleman, Co-Chair, Nat'l Advisory Council on Innovation and Entrepreneurship, to Gary Locke, U.S. Secretary of Commerce on University Commercialization (Apr. 19, 2011), available at <http://www.aau.edu/WorkArea/DownloadAsset.aspx?id=12084>; Michael N. Bastedo & Nathan F. Harris, *The State Role in Entrepreneurship and Economic Development: Governance, Oversight, and Public University Start-Up Innovation*, in 19 ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION, & ECONOMIC GROWTH (2009); Michael M. Crow, *The Research University As Comprehensive Knowledge Enterprise: A Prototype for a New American University*, in UNIVERSITY RESEARCH FOR INNOVATION (Luc E. Weber & James J. Duderstadt eds., 2010).

lobbied in favor of the sweeping reform to the nation's patent laws that Congress enacted in the fall of 2011.¹⁶ With the potential—and reality—of billion-dollar patent infringement verdicts,¹⁷ massive defensive accumulation and licensing of patents,¹⁸ and increased attention by the Supreme Court on fundamental questions of patent law,¹⁹ public dialogue continues to intensify concerning the appropriate contours of how patents are acquired and used.²⁰ As drivers of innovation and holders of many patents, universities have an important role to play in these debates. By examining the legal and policy questions inherent in how some universities choose to use their patents, this article offers fresh, colorful, and relevant perspectives that bear further reflection by policy makers interested in aligning patent laws and policies with the public interest.

- Lawyers for Universities: In-house counsel at universities without a history of involvement in patent litigation may be uncertain as to

16. See Goldie Blumenstyk, *U.S. Senate Passes Sweeping Overhaul of Patent System*, CHRON. HIGHER EDUC. (Mar. 8, 2011), <http://chronicle.com/article/US-Senate-Passes-Sweeping/126649/> (noting support for patent reform by the Association of American Universities); see also Letter from Hunter R. Rawlings III et al, President, Ass'n. of Am. Univs., to the Honorable Patrick Leahy, Chairman, and the Honorable Chuck Grassley, Ranking Member, U.S. Senate Committee on the Judiciary (June 27, 2011), available at <http://www.autm.net/AM/Template.cfm?Section=Documents&Template=/CM/ContentDisplay.cfm&ContentID=6117> (indicating support of the Association of American Universities, the American Council on Education, the Association of American Medical Colleges, the Association of Public and Land-grant Universities, the Association of University Technology Managers, and the Council on Governmental Relations). Admittedly, others within the higher education community opposed patent reform. See Goldie Blumenstyk, *Several Universities Oppose Pending 'Patent Reform' Legislation*, CHRON. HIGHER EDUC. (June 21, 2011), <http://chronicle.com/blogs/ticker/several-universities-oppose-pending-patent-reform-legislation/34091> (noting the opposition of WARF and others). For more on the new law, see Leahy-Smith America Invents Act, Pub. L. No. 112-029, 125 Stat. 284 (2011).

17. See, e.g., Dennis Crouch, *Apple Wins \$1.05 Billion Verdict*, PATENTLY-O BLOG (Aug. 24, 2012), <http://www.patentlyo.com/patent/2012/08/apple-wins-105-billion-verdict.html> (reporting that jury awarded \$1.05 billion to Apple in damages for competitor Samsung's infringement of Apple's utility and design patents claiming various features of handheld devices).

18. See Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1 (2012) (describing advent of mass patent aggregators and their business model).

19. See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S.Ct. 1289 (2012) (invalidating as encompassing laws of nature patents claiming methods for calibrating proper dosage of thiopurine drugs to treat autoimmune diseases); *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 132 S.Ct. 1794 (2012), cert granted, 132 S.Ct. 1794 (2012) (certiorari granted to determine whether human genes are patentable).

20. See, e.g., LEWIS HYDE, *COMMON AS AIR: REVOLUTION, ART, AND OWNERSHIP* (2010) (questioning the private rights theory of IP ownership); Megan M. La Belle, *Patent Law As Public Law*, 20 GEORGE MASON L. REV. 41 (advocating for the treatment of patent validity challenges as public law litigation); Robin Cooper Feldman, *Intellectual Property Wrongs* (Aug. 10, 2012) (unpublished manuscript) available at <http://ssrn.com/abstract=2127558> (arguing that "IP rights [have] become the vehicles for IP wrongs" and suggesting creation of a doctrine of inappropriate use of intellectual property).

where to turn for insights into the challenges and opportunities posed by patent enforcement. By relying on the informed opinions of TTO professionals at universities with vast experience litigating patents, this article serves as a handy primer for in-house counsel first approaching the subject area. Outside counsel to universities also may find this article helpful in understanding common university concerns and orientations toward patent enforcement and in educating new university clients on the topic, as appropriate.

Now for a few words on what follows. Part I provides a brief background on patent infringement litigation involving university plaintiffs, including information on the activity's costs, historical incidence, and how leading voices within the technology transfer community view the activity. Part II details the methodology used in the study conducted for this article. It describes the research questions that guided the study, its theoretical framework, information on participants and how they were selected for inclusion, and other information concerning data collection. Finally, Part III presents and discusses the study's findings, which are arrayed thematically.

II. BACKGROUND ON UNIVERSITY PATENT ENFORCEMENT

A. *Definitional and Procedural Issues*

Universities can become involved in various forms of litigation involving patents, including litigation related to the prosecution of patents, disputes concerning inventorship, defense of patent infringement allegations, and common law disputes over contractual issues that concern patents.²¹ While all of the aforementioned activities loosely may be labeled "patent litigation," this article takes a narrow focus on one form of patent litigation: lawsuits in which a university, by itself or with another party, alleges infringement of one or more claims of a university-owned patent.²²

Universities that own patents are not treated differently from other patent owners under prevailing interpretation of patent law by the Court of Appeals for the Federal Circuit ("CAFC"). Thus, any lawsuit in

21. Jacob H. Rooksby, *University Initiation of Patent Infringement Litigation*, 10 J. MARSHALL REV. INTELL. PROP. L. 623, 639-644 (2011) (discussing the variety of university involvement in disputes concerning patents).

22. I use *university* to mean any non-profit, public or private, undergraduate- and graduate-degree granting institution located in the United States that engages in patenting and technology transfer, including any university-controlled, or closely-affiliated, patent or research entities that may be separately incorporated from the university.

which infringement of a university-owned patent is alleged must, as a matter of patent law, include the university patent owner as a named plaintiff.²³ As a practical matter, this legal constraint leads to an obvious result in situations where a university owns an unlicensed patent over which it wishes to sue. The university simply will sue the alleged infringer on its own. However, in situations where a university owns a patent and subsequently licenses it to a company, the university ultimately cannot escape involvement as a named plaintiff in an infringement action involving the patent, so long as less than “all substantial rights” to the patent have been transferred to the licensee.²⁴

B. Costs

Patent infringement litigation has been called the “sport of kings” because it is costly, complex, and uncertain.²⁵ Survey data collected in 2010 from law firms specializing in intellectual property (“IP”)²⁶ law revealed that for patent infringement lawsuits with \$1 million to \$25 million at risk, the mean cost for one party to take a case through trial and any appeal was \$2,769,000.²⁷ For lawsuits with over \$25 million at risk, the mean cost was \$6,018,000.²⁸

In addition to the high costs typically involved in pursuing patent

23. See, e.g., *AsymmetRx, Inc. v. Biocare Med., LLC*, 582 F.3d 1314 (Fed. Cir. 2009) (vacating and remanding patent infringement case for failure to join university patent owner as plaintiff). Universities can avoid participating as named plaintiffs in such lawsuits by incorporating a separate legal entity to own and license patents for the benefit of the university. For a discussion of the various ways in which universities structure their technology transfer operations, including structures that avoid university involvement as named plaintiffs in infringement litigation, see Jacob H. Rooksby, *University Involvement in Patent Infringement Litigation*, 47 LES NOUVELLES 8-18 (2012).

24. The CAFC has interpreted “all substantial rights” to include many different rights, but the right to sue for infringement is “particularly dispositive.” *Vaupel Textilmaschinen KG v. Meccanica Euro Italia S.P.A.*, 944 F.2d 870, 875 (Fed. Cir. 1991); see also *Alfred E. Mann Found. for Sci. Research v. Cochlear Corp.*, 604 F.3d 1354, 1361 (Fed. Cir. 2010) (noting that “the nature and scope of the licensor’s retained right to sue accused infringers is the most important factor in determining whether an exclusive license transfers sufficient rights to render the licensee the owner of the patent”); Jeffrey L. Newton, *Assuring All Substantial Rights in Exclusive Patent Licenses*, 44 LES NOUVELLES 235-254 (2009) (reviewing CAFC precedent with respect to “all substantial rights” in patent licensing); Timothy Denny Greene, “*All Substantial Rights*”: *Toward Sensible Patent Licensee Standing*, 22 FED. CIR. B.J. 1 (2012) (same).

25. Douglas J. Kline, *Patent Litigation: The Sport of Kings*, TECH. REV. (Apr. 28, 2004), <http://www.technologyreview.com/business/13562/>.

26. This article uses the term *IP* exclusively in reference to patents.

27. AIPLA, LAW PRACTICE MANAGEMENT COMMITTEE, REPORT OF THE ECONOMIC SURVEY I-153, I-154 (2011).

28. *Id.*

infringement litigation, some have lambasted university participation in the activity out of concern that it betrays the public's trust.²⁹ These critics argue that universities receive tax subsidies in order to pursue public goods such as teaching and conducting research, not for participating in litigation aimed at protecting the market exclusivity of the university's patent licensees. Given that taxpayers fund sixty percent of all universities' research activities through the award of federal research grants,³⁰ university participation in patent infringement litigation strikes some as all the more inappropriate.

In addition to these reputational concerns, participation in patent infringement litigation can lead to other indirect costs as well, such as the opportunity cost of having key personnel consult with attorneys about litigation strategy, review and produce documents during discovery, and testify in depositions and/or at trial. With respect to university participants, patent enforcement activity also may lead to a decrease in TTO productivity.³¹

Out of presumed concern for the above costs, some universities may seek to avoid enforcing their patents through infringement litigation. This inclination, however, can lead to a different price: being seen as a weak defender of IP by coveted commercial partners, whether current or prospective. As Howard Bremer, an architect of the Bayh-Dole Act, told me, "a lot of private sector companies, the big ones, look at universities as toothless tigers, because they are not going to assert their patent rights. One of the primary reasons, of course, is the cost involved."³²

C. *Frequency of Occurrence*

Comprehensive empirical research into lawsuit filings shows that in fact many universities engage in enforcing their patents through

29. See, e.g., JENNIFER WASHBURN, UNIVERSITY, INC.: THE CORPORATE CORRUPTION OF AMERICAN HIGHER EDUCATION 161 (2005).

30. MOWERY ET AL., *supra* note 6, at 24.

31. See Scott Shane & Deepak Somaya, *The Effects of Patent Litigation on University Licensing Efforts*, 63 J. ECON. BEHAV. & ORG. 739 (2007) (reporting that university involvement in patent litigation correlated negatively with the number of new patent licenses and new exclusive licenses filed by universities in subsequent years).

32. Bremer, *supra* note 1. See also Marie Powers, *Patent Litigation: Sometimes It's A Risk Worth Taking*, TECH. TRANSFER TACTICS (Mar. 30, 2011), <http://www.technologytransfertactics.com/content/2011/03/30/patent-litigation-sometimes-it%E2%80%99s-a-risk-worth-taking-2/> ("Universities are almost always inclined to try to settle a dispute before heading to court, but TTOs engaged in this process need to understand that companies often take advantage of this inclination.").

infringement litigation, despite the direct and indirect costs noted above.³³ Indeed, over sixty American universities (both public and private) participated as plaintiffs in over 245 patent infringement lawsuits filed between January 1, 1973 and December 31, 2010.³⁴ Given the limitations inherent in data collection concerning historic litigation activity, the actual numbers of patent infringement lawsuits filed by universities and university plaintiffs participating in those actions undoubtedly are higher.³⁵ Regardless, for those universities that have litigated their patents, some victories have been significant³⁶—as have some defeats.³⁷

33. Jacob H. Rooksby, *Universities That Litigate Patents* (May 2012) (unpublished Ph.D. dissertation, University of Virginia) (on file with author).

34. *Id.* For other quantitative reports of university involvement as plaintiffs in patent infringement lawsuits (covering smaller time periods), see Rooksby, *supra* note 21, at 660 (reporting 57 patent infringement lawsuits filed by universities between Jan. 1, 2009 through Dec. 31, 2010) and Christopher M. Holman, Professor of Law, Univ. of Mo-Kansas City, Presentation at Santa Clara and School of Law Symposium: University Patent Litigation (Jan. 30, 2009), available at <http://www.chtlj.org/sites/default/files/media/symposiums/v025/slides/holman.ppt> (reporting 190 patent infringement lawsuits filed by universities between Jan. 1, 2000 and Jan 24, 2009).

35. Rooksby, *supra* note 33.

36. See, e.g., Todd Bishop, *Microsoft's Eolas Settlement: UC Gets \$30.4M*, THE MICROSOFT BLOG (Oct. 10, 2007, 5:02 PM), <http://blog.seattlepi.com/microsoft/2007/10/10/microsofts-eolas-settlement-uc-gets-30-4m/> (reporting that University of California received \$30.4 million in a settlement of a patent infringement lawsuit it brought with its licensee against Microsoft Corp.); Susan Kelley, *Hewlett-Packard, Cornell Reach Settlement in Patent Case*, CORNELL CHRON. ONLINE (June 9, 2010), <http://www.news.cornell.edu/stories/June10/HPCaseClosed.html> (reporting that Cornell University settled on confidential terms a patent infringement lawsuit it brought against Hewlett-Packard after court reduced university's damages award to \$71.3 million); Katherine Lynn, *U Heads for "Patent Cliff."* THE MINN. DAILY (Oct. 6, 2011), <http://www.mndaily.com/2011/10/06/u-heads-patent-cliff> (reporting that University of Minnesota received more than \$350 million in running royalties from GlaxoSmithKline since 1999 as a result of settling a patent infringement lawsuit university brought in 1998); Tom Fontaine, *Pitt Awarded \$73.6 Million in Patent Case*, PITTSBURGH TRIBUNE-REVIEW (April 25, 2012, 2:14 PM), <http://triblive.com/news/adminpage/1125208-74/patent-varian-pitt-million-universities-court-university-percent-sales-award> (reporting that judge ordered medical device company to pay University of Pittsburgh \$73.6 million for infringing university's patent, doubling the jury's award after finding willful infringement); Rich Lord, *Carnegie Mellon Wins \$1.17 Billion in Patent Case*, PITTSBURGH POST-GAZETTE (Dec. 27, 2012 12:26 AM), <http://www.post-gazette.com/stories/local/neighborhoods-city/carnegie-mellon-wins-117-billion-in-patent-case-668013/> (reporting that jury found company knowingly infringed university-owned patents directed toward hard-disk drive circuit technology and awarded university over \$1 billion in damages).

37. See, e.g., *Univ. of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916 (Fed. Cir. 2004) (invalidating on appeal patents owned by the University of Rochester in patent infringement lawsuit against pharmaceutical companies); Goldie Blumenstyk, *Taking on Goliath: U. of Rochester Risks Millions in Patent Fight with Pharmaceutical Giants*, CHRON. HIGHER EDUC., Sept. 20, 2002, at A27 (reporting that University of Rochester had established an eight-figure legal fund to pursue the aforementioned case); *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 636 F.3d 1341 (Fed. Cir. 2011) (invalidating on appeal patents co-owned by New York University and vacating and reversing

D. *Technology Transfer Community Urges Caution*

While the participation of universities as plaintiffs in patent infringement litigation is not infrequent, virtually no research has been conducted on university decision-making about patent enforcement or the intra-institutional impact of university decisions to pursue such litigation.³⁸ However, a few leading groups within the technology transfer community have issued cautions.³⁹ For example, in a white paper released in 2007 by Stanford University and ten other prominent American research universities, the authors urged that “enforcement action should be carefully considered.”⁴⁰ The authors stressed that universities should be mindful of their mission to use patents to promote technology development for society’s benefit.⁴¹ To that end, the universities argued that litigation is “seldom the preferred option for resolving disputes” and should be pursued only if there is a “mission-oriented rationale for doing so” that can be clearly articulated to internal constituencies and to the public.⁴²

The Association of University Technology Managers (“AUTM”)—the leading industry group for university technology transfer professionals—subsequently endorsed the Stanford white paper, as did a National Academy of Sciences committee established to review university IP management.⁴³ The National Academy of Sciences committee wrote in its report that “enforcement of IP rights against suspected infringers should be approached carefully to protect the institution’s resources and reputation.”⁴⁴ In furtherance of this suggestion, the committee recommended that a university’s decision to litigate a patent should reflect its reasons for obtaining and licensing patents in the first instance. Listed examples included:

record-setting \$1.67 billion jury award in patent infringement lawsuit brought by university and its exclusive licensee).

38. For one notable exception, see Shane & Somaya, *supra* note 31.

39. See generally Press Release, Leland Stanford Univ., In the Public Interest: Nine Points to Consider in Licensing University Technology (Mar. 6, 2007), available at <http://www-leland.stanford.edu/group/OTL/documents/whitepaper-10.pdf>

40. *Id.* at 6.

41. *Id.*

42. *Id.*

43. NAT’L RESEARCH COUNCIL, COMM. ON MGMT. OF UNIV. INTELLECTUAL PROP.: LESSONS FROM A GENERATION OF EXPERIENCE, RESEARCH, AND DIALOGUE, MANAGING UNIVERSITY INTELLECTUAL PROPERTY IN THE PUBLIC INTEREST 82 (Stephen A. Merrill & Anne-Marie Mazza eds., 2010), available at http://www.nap.edu/openbook.php?record_id=13001&page=1.

44. *Id.* at 7.

- contractual or ethical obligations to protect the rights of existing licensees to enjoy the benefits conferred by the licensees;
- disregard by an infringer of scientific or professional norms and standards, such as use of medical technologies outside standards of care or professional guidelines;
- disregard by an infringer of the institution's legitimate rights, for example, as evidenced by a refusal to negotiate a license on reasonable terms.⁴⁵

The committee concluded that while infringement litigation is rarely the preferred method for resolving patent disputes, "it is an option important for universities to retain."⁴⁶

III. METHODOLOGY

A. *Questions for Research*

In an effort to build understanding of the considerations and pressures that influence university participation as plaintiffs in patent infringement litigation, I took a qualitative approach in the study described here to investigate a simple yet surprisingly unanswered couplet of questions concerning how university decision-makers regard university patent enforcement. Namely, what factors or constraints do they report considering in determining whether to litigate their university's patents? And how do they weigh fundamental concerns for revenue generation and allegiance to university research missions in their decisions to enforce university patents through infringement litigation?⁴⁷

A qualitative interview approach was deployed in order to collect evocative data not available from other sources, such as university press releases, court filings, or judicial opinions.⁴⁸ I anticipated that the

45. *Id.*

46. *Id.*

47. Given the confidential and often sensitive nature of university activities in this realm, I did not solicit details concerning any specific cases involving participants' universities (whether contemplated, ongoing, or completed). While some participants referenced details of such cases during interviews, I tried to steer their comments toward the hypothetical, as the study's purpose was not to document institutional histories of patent enforcement actions. I wanted interviewees to draw on these experiences only insofar as they were helpful in explaining institutional practices, beliefs, and decision-making.

48. For an excellent and recent example of qualitative methods used in IP legal scholarship, see David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 ALA. L.

study's sample size would be small, given the sensitivity of the research topic and the difficulty of securing participation from qualified participants, of which there are not many. Additionally, there are very few university leaders in a position to make decisions about patent litigation, and even fewer ones with fresh experience doing so. In light of the potential value of many patents and the proprietary nature of patent rights, those with knowledge understandably are reluctant to divulge key elements of strategy and decision-making. With these realities in mind, I determined that an exploratory study relying on a few key informants with deep knowledge of organizational history and the practice of patent enforcement within their universities (and more broadly) would be appropriate and add significantly to the knowledge base.⁴⁹

B. *Theoretical Framework*

Academic capitalism theory and the “two-good” framework help situate this study.⁵⁰ Academic capitalism theory suggests that university decision-makers—facing pressures to find new sources of revenue while steeped in an academic culture that views faculty output as potentially proprietary and lucrative—are predisposed to monetize intellectual property when possible.⁵¹ Patenting provides an attractive vehicle for doing this. While licensing patents to industry is the traditional method for universities to generate revenues from research investments, it is not the only method.⁵² Alleged infringers may be sued for the purpose of obtaining lucrative damages awards or extracting favorable licensing arrangements through out-of-court settlements. Many see such pursuit

REV. 335 (2012) (collecting data through in-depth interviews and analysis of contingency fee agreements); see also Lisa Webley, *Qualitative Approaches to Empirical Legal Research*, in THE OXFORD HANDBOOK OF EMPIRICAL LEGAL RESEARCH 927-940 (Peter Cane & Herbert Kritzer eds., 2010) (describing the appropriateness of qualitative methods to examine under-explored legal issues or situations).

49. For further justification for studying small samples to provide insight into rare but significant events, see James G. March, Lee S. Sproull & Michal Tamuz, *Learning from Samples of One or Fewer*, 2 ORG. SCI. 1 (1991).

50. The canonical works on academic capitalism theory include SHEILA SLAUGHTER & LARRY L. LESLIE, *ACADEMIC CAPITALISM: POLITICS, POLICIES, AND THE ENTREPRENEURIAL UNIVERSITY* (1997) and SLAUGHTER & RHOADES, *supra* note 13. See generally WEISBROD, ET AL., *supra* note 11, for an introduction to the two-good framework of higher education.

51. See Diana Rhoten & Walter W. Powell, *The Frontiers of Intellectual Property: Expanded Protection Versus New Models of Open Science*, 3 ANN. REV. L. & SOC. SCI. 345, 362-63 (2007) (noting the considerable financial pressures on universities to “compete in the research marketplace through protecting and profiting from their investments”).

52. Poltorak, *supra* note 9.

as a “common rationale for patenting,”⁵³ albeit one that may place universities in “awkward positions with regard to their treatment of . . . the public trust.”⁵⁴

The two-good framework articulated by Weisbrod, Ballou, and Asch recognizes that universities must balance “mission goods”—such as supporting faculty and student research through patenting and technology transfer efforts—with “revenue goods,” or activities primarily aimed at generating money to support further investment in mission goods.⁵⁵ Thus, while maintaining the public’s trust in universities’ research missions is important, universities simultaneously engage in “crass money-making activities” to generate revenue that can be used to further their commendable social missions.⁵⁶

Mission activities and revenue activities are not always neatly separable.⁵⁷ Some are best described as hybrid activities that further both mission and revenue goods.⁵⁸ Whether mission or money predominates in any given university activity likely depends on the university and the particular values at stake. Tensions can arise in that all universities, whether public or private, “can be expected to seize opportunities to enhance profits.”⁵⁹ However, when doing so conflicts with an important mission good, the actual or contemplated revenue-generating activity may yield.⁶⁰

University patent enforcement is in many ways a delicate hybrid activity shaped by these complex forces.⁶¹ A university’s strong patent

53. Ted Sichelman & Stuart J.H. Graham, *Patenting by Entrepreneurs: An Empirical Study*, 17 MICH. TELECOMM. & TECH. L. REV. 111, 118 (2010); cf. Poltorak, *supra* note 9, at 18 (questioning that “if not for the unspoken threat of litigation, who would ever license a patent, which, at the end of the day, is nothing more than a right to sue for infringement?”).

54. SLAUGHTER & RHOADES, *supra* note 13, at 112.

55. WEISBROD ET AL., *supra* note 11, at 58-76.

56. *Id.* at 2; see also Bok, *supra* note 11.

57. The myriad activities associated with collegiate athletics, specifically Division I football and basketball programs, help illustrate this point. For example, lucrative endorsement deals with athletic companies that provide top-of-the-line equipment may help collegiate players enhance their skills as student-athletes (a mission good) while also generating revenue for the athletic program (a revenue good).

58. WEISBROD ET AL., *supra* note 11, at 68-70.

59. *Id.* at 69.

60. For example, many prestigious and highly-selective colleges and universities likely could generate substantial revenue by auctioning off to the highest bidders a set number of spots in their entering freshmen classes each year. Of course, doing so undoubtedly would compromise their reputations for academic excellence—a mission good they value deeply—so they continue to use largely merit-based criteria in making admissions decisions.

61. It is also possible that other paradigms help explain university patent enforcement, in addition to or instead of the two-good framework and academic capitalism theory. I selected these two to use as a framework given their plausibility and the significant attention they have garnered in

enforcement practices could lead to additional revenues and research investments. Such practices also could alienate other funders and undermine public trust in important university research missions. But so could *weak* enforcement practices. Thus, gaining insight into how university decision-makers interpret and approach this complicated activity was the study's guiding aim.

C. *Participants and Methods*

Drawing on previous research⁶² and working with a knowledgeable gatekeeper, interviewees were drawn from a population consisting of high-level TTO personnel at universities identified as having recent experience participating as a plaintiff in one or more patent infringement lawsuits. High-level TTO personnel were targeted as study participants given that such individuals typically are deeply involved in any university decision to bring a patent infringement lawsuit.⁶³ In addition to working with faculty inventors to identify and protect patentable developments, TTO personnel negotiate deals with businesses willing to license and commercialize university-owned patents. When an infringer is identified, these professionals liaison with the patent's faculty inventor(s) and industry licensee(s) to help university decision-makers understand the risks and benefits of bringing an infringement action.

The purposeful, non-random sampling technique resulted in targeted interviewees at five universities ultimately enrolling in the study. Tape-recorded interviews ranging from forty minutes to over one hour were conducted with the participants at AUTM's 2011 annual meeting in Las Vegas, Nevada.⁶⁴ Operating from a constructivist paradigm,⁶⁵ I took a participatory role in the interviews, exploring with participants the nuances of issues by attempting to give voice to a variety of plausible arguments, positions, or concerns I believed to be held by

the higher education literature.

62. See generally Rooksby, *supra* note 21.

63. No doubt others, such as university counsel, are involved in these decisions as well. However, I chose to target high-level TTO personnel for participation in the study given their deeper level of daily focus on technology transfer operations.

64. Transcripts for the interviews referenced in this article are on file with the author and *Akron Law Review*.

65. Constructivism is a theory of knowledge aimed at building understanding of complex phenomena. Rather than seeking an inflexible, etched-in-stone truth, constructivism treats inquiry as a process of constructing a defensible perspective on reality, always subject to further development and refinement. See Egon G. Guba & Yvonna S. Lincoln, *Competing Paradigms in Qualitative Research*, in HANDBOOK OF QUALITATIVE RESEARCH 105, 110-116 (N. K. Denzin & Yvonna S. Lincoln eds., 1994).

industry, academic, or policy stakeholders.⁶⁶ Interview data were transcribed and analyzed using an inductive coding process with a view toward identifying emerging themes and outlier opinions.⁶⁷

All participants were males and held a director-level or equivalent senior policymaking position in a TTO at five different public universities across the United States at the time of data collection.⁶⁸ While study participants certainly do not speak for all universities that have litigated patents, their comments do offer meaningful insights into an important subset of them.

In addition to the interviews, relevant data were gleaned from observations of a speech by AUTM's president and attendance at a one-and-one-half hour session at the meeting entitled "IP Enforcement and Infringement Issues for Universities."⁶⁹ According to the meeting program, the purpose of the session was to "explore the advantages and disadvantages of enforcing and litigating patents, including strategies for dealing with patent litigation cases."⁷⁰ I also spoke informally about the research topic with various attendees throughout the annual meeting and logged pertinent conversations as field notes. I used some of the issues identified in the aforementioned presentation and conversations as points of discussion with the interviewees.⁷¹

IV. FINDINGS AND DISCUSSION

Findings are arrayed thematically in the subparts below, which also contain interwoven reactions and commentary concerning how the findings expand understanding of the nuances and difficulties presented

66. I did, however, follow a general script of questions that helped structure the interviews. These questions are included in Appendix A.

67. See JOHN W. CRESWELL, EDUCATIONAL RESEARCH: PLANNING, CONDUCTING, AND EVALUATING QUANTITATIVE AND QUALITATIVE RESEARCH (3d ed. 2008) for a description of these methods and their appropriateness for this type of study.

68. I have withheld participants' specific job titles, as well as additional details about their universities and backgrounds, in the interest of protecting their confidential participation in the study.

69. ASS'N OF UNIV. TECH. MANAGERS, AUTM 2011 ANNUAL MEETING PROGRAM: IMPROVING THE ODDS 32 (2011), *available at* http://www.autm.net/AM/Template.cfm?Section=Meeting_Home2&Template=/CM/ContentDisplay.cfm&ContentID=5392.

70. *Id.*

71. Handouts for the session were distributed electronically before the annual meeting began. Thus I was able to draw on these materials and other existing literature to formulate interview questions. The specific questions I asked in each interview were similar, although some questions changed or developed based on issues or themes that emerged from previously completed interviews. See Appendix A for the general script of questions.

by university patent enforcement.

A. *“God Forbid”*: *Universities Litigate Patents*

Speaking on the last day of the annual meeting, AUTM’s incoming president addressed the membership and outlined the organization’s purpose and goals. In describing the role of university technology managers, the incoming president stated:

We are licensing and business development professionals. We handle technologies from inception through research; we handle conflict of interest issues; we close the deals with our commercial partners and then (God forbid) we participate in litigation on our own or with our licensees to protect our, and our inventors’, technology rights.⁷²

Several attendees at the meeting had mentioned to me that AUTM as an organization can be less than forthcoming with data or information that potentially could be viewed as critical of university involvement in technology transfer.⁷³ For example, some point to the fact that, since 1999, AUTM’s widely cited annual licensing survey has not collected information on litigation costs expended by universities, out of apparent concern for skewing the data on legal costs.⁷⁴ Professor Gary Rhoades views this exclusion as emblematic of AUTM’s “effort to track mostly the credit side of the accounting ledger, monitoring the growth of activities and revenues, but not assessing the net gains.”⁷⁵ For these reasons, the incoming president’s forthright placement of university patent enforcement as—“God forbid”⁷⁶—within the job description of TTO personnel struck me as significant. Do universities now view

72. Robin Rasor, 2011-2012 AUTM President, Incoming AUTM President’s Speech at the AUTM 2011 Annual Meeting in Las Vegas, NV (Mar. 2, 2011), *available at* <http://www.autm.net/AM/Template.cfm?Section=Documents&Template=/CM/ContentDisplay.cfm&ContentID=5537> at 1.

73. Indeed, some attendees seemed to perceive the mere mention of university patent enforcement as inherently critical, speculating that few TTO directors, if any at all, would be willing to talk with me about it.

74. See Gary Rhoades, *Housing the Measurement of University Innovations’ Social Value: Organizational Site, Professional Perspective, Institutional Outlook*, in 19 *ADVANCES IN THE STUDY OF ENTREPRENEURSHIP, INNOVATION & ECONOMIC GROWTH* 237, 244 (2009) (“[T]he AUTM survey provides data on legal fees, but since 1999, these figures have only included the costs of patent prosecution, and have not included major litigation fees of universities, or the costs of university or externally hired attorneys who deal with technology transfer issues.”).

75. *Id.* at 244.

76. Rasor, *supra* note 72.

participation as plaintiffs in patent infringement litigation as an inevitable result of their involvement in patenting and technology transfer?

According to some of the presenters at the annual meeting session on “IP Enforcement and Infringement Issues for Universities,” they should.⁷⁷ An attorney in private practice moderated the session, which featured three panelists with experience working for or with TTOs in matters involving patent infringement litigation. The moderator opened the session by noting that universities increasingly must contemplate enforcing their patents through infringement lawsuits. She listed the economic crisis, reduced federal and state funding for higher education, drop-offs in donations, and the need to find ways “to increase revenue while trying to keep tuition as reasonable as possible for many struggling American families” as background factors. Before introducing the panelists, she concluded by saying that “intellectual property is a vital asset, and if appropriately utilized, can provide large returns. The most popular ways to capitalize on IP include licensing and enforcement.”

The speaker with the presentation most relevant to my study was a partner at a boutique, IP litigation law firm that has significant experience representing universities in patent infringement litigation. He spoke at length about the common concerns he hears from universities that are contemplating enforcing their patents through infringement litigation. His slide presentation and discussion listed those concerns as follows:

- Litigation is not part of our mission statement
- University’s reputation
- Relationships
- Prominent alumni
- Donors
- Industry partners
- Cost of litigation
- Approximately \$3 million to \$5 million through trial⁷⁸

Touching on the toothless tiger concern, he noted that “infringers

77. Transcript of session on file with the author.

78. Joseph F. DePumpo, Partner, Shore Chan Bragalone DePumpo L.L.P., Speech at the AUTM 2011 Annual Meeting in Las Vegas, NV: *IP Enforcement and Infringement Issues for Universities* (Mar. 2, 2011) at 2 (slide presentation available through AUTM and on file with author).

use all of the above to their advantage,” thinking that universities will not actually be bold enough to sue them.⁷⁹ Others also have detected university hesitancy to sue, alleging that “universities are widely considered meek when it comes to enforcing their patents.”⁸⁰ Often this perception is correct, the presenter stated, as universities are afraid of being labeled “highly litigious,” and some apparently even mistakenly fear that assertive patent litigation activity could negatively affect their *U.S. News and World Report* rankings.

The presenter concluded that universities’ concerns are overstated, and that all universities need to consider enforcing their patents. He challenged universities to ask themselves, “Why do we get patents if we are not willing to enforce them?” Noting that enforcement action is a “tremendous untapped revenue source,” he suggested that diminishing state funding of higher education may turn infringement litigation into an attractive gap filler. The presenter also posited that universities are sympathetic litigants, as “no one wants to see universities get taken advantage of.” Assuring the crowd that many top research universities “regularly enforce their patents,” he cited recent cases brought by the California Institute of Technology, the University of Virginia, the State University of New York, and the University of Illinois as examples.

Despite the activity’s regularity when viewed from a national perspective, no participant in my study professed having to consider with any predictable frequency whether to pursue an infringer. One participant said such discussions occur “once every two to four years,” while the others indicated they are roughly a once-a-year occurrence. Simon⁸¹ echoed some of the concerns mentioned by the attorney in the session on IP enforcement, which he attended. He said he thought that “most universities tend to sort of shy away from litigation. They’re scared of it, because it has this big seven-figure cost associated with it.” As participants disclosed, however, some universities have explored creative ways to decrease or even eliminate their out-of-pocket legal costs in pursuing patent enforcement actions.

B. “It Just Didn’t Feel Right”: Contingency Fee Litigation and the Image of the Troll

All participants cited the high cost of litigation as an important consideration in their decision-making. Several mentioned pursuing

79. *Id.*

80. Powers, *supra* note 14.

81. The names of all participants have been changed to protect their confidentiality.

litigation on a contingency fee basis with an outside law firm as a potential cost-saving measure. If a law firm takes a case on a pure contingency fee basis, the firm receives payment (typically fifteen to fifty percent of the amount collected) only if the plaintiff wins a monetary judgment or receives money as part of a settlement agreement.⁸² Long associated with personal injury cases, contingency fee arrangements increasingly are prevalent in patent infringement litigation, particularly in lawsuits brought by “patent trolls.”⁸³ Patent trolls often bring infringement actions on a contingency fee basis, as doing so does not require payment of any out-of-pocket legal fees.⁸⁴ Many hold an unfavorable view of patent trolls—neutrally referred to as non-practicing entities (“NPEs”)—because they can delay the fruits of innovation from reaching and benefitting the public.⁸⁵ Some companies have argued that universities active in litigating are patent trolls because they do not practice their patents, although universities’ substantial support of faculty inventors and engagement in other socially beneficial activities persuasively undercut this argument.⁸⁶ The image of the troll

82. See HERBERT M. KRITZER, RISKS, REPUTATIONS, AND REWARDS: CONTINGENCY FEE LEGAL PRACTICE IN THE UNITED STATES (2004) (reporting contingency fee rates from fifteen to fifty percent); see also Schwartz, *supra* note 48, at 360 (reporting contingency fee rates from 28% to 40.2%). Blended arrangements—which combine contingency payments along with fee-for-service payments—also exist.

83. See Schwartz, *supra* note 48, at 343-356. A patent troll is a pejorative term for an entity that does not manufacture, develop, or sell any product covered by the patents it owns, and instead sues alleged infringers as its primary method of reaping financial returns on investment. See Colleen V. Chien, *From Arms Race to Marketplace: The New Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297 (2010) for a discussion of patent trolls and their function in today’s patent system. See also Ashby Jones, *When Lawyers Become “Trolls,”* WALL ST. J., B1, Jan. 23, 2012 available at <http://online.wsj.com/article/SB10001424052970203750404577173402442681284.html>; *Ira Glass & Chicago Public Media, When Patents Attack!* THIS AMERICAN LIFE (July 22, 2011), <http://www.thisamericanlife.org/radio-archives/episode/441/when-patents-attack>.

84. See Schwartz, *supra* note 48.

85. See Michael Risch, *Patent Troll Myths*, 42 SETON HALL L. REV. 457 (2012) (comprehensively testing the criticisms of and justifications for patent trolls); see also JEFFREY H. MATSURA, *JEFFERSON VS. THE PATENT TROLLS* (2008) (arguing that patent trolls are as old as the patent system itself).

86. See, e.g., Mark A. Lemley, *Are Universities Patent Trolls?*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 630 (2008) (“University patent owners aren’t trolls in my view when they contribute previously unknown technology to society, rather than just imposing costs on others by obtaining and asserting legal rights over inventions independently developed by others.”); Feldman, *supra* note 20, at 19 (“University behavior . . . tends to be quite different from that of garden-variety trolls, and some commentators are uncomfortable grouping the two together.”); Jeremiah S. Helm, Comment, *Why Pharmaceutical Firms Support Patent Trolls: The Disparate Impact of eBay v. MercExchange on Innovation*, 13 MICH. TELECOMM. & TECH. L. REV. 331, 335 (2006) (“The undeniable fact is that universities are active innovators, while patent trolls, almost by definition, are

raises the concern, however, that the manner in which universities litigate their patents may impact how others view universities' commercialization activities.⁸⁷

Although all participants were familiar with contingency fee arrangements, not all indicated they are supportive of them. Two participants spontaneously voiced concern for their institutions being viewed as patent trolls without my having used that term earlier in the interview. For example, Simon expressed concern for contingency fee arrangements because of the potential that others would see such litigation as troll-like. As he explained:

It's an issue for us in the sense that we don't—these have to be genuine cases of true infringement. We always worry about being a troll, and I think that's a fear that perhaps builds into the way universities react, is that they don't want to be pictured as sort of acting like trolls in this environment.

One participant, Roberto—who indicated that his institution had spent over \$10 million in legal fees on the last patent infringement lawsuit it brought—recommended that institutions newer to technology transfer consider contingency fee arrangements if they are looking to save costs. His institution, however, had tried such arrangements before and has decided it likely will not pursue them again in the future. He told me why:

Roberto: It was one of those things where if we, given what happened . . . I would say, I think, we wouldn't do that again. We wouldn't do it on a contingency fee.

not. . . . [T]his difference is key.”). Some universities' involvement with “mass aggregators,” a new species of NPE, may eventually undermine their professed commitment to serving as socially-useful bastions of research and innovation. Perhaps soon to become more disruptive to the patent system than patent trolls, mass patent aggregators are entities like Intellectual Ventures that acquire vast numbers of patents for purposes of licensing and privateering. See Ewing & Feldman, *supra* note 18, at *36 n. 33 (noting that 5.3% of Intellectual Ventures' patent portfolio comes from universities). The fifty universities revealed in Ewing and Feldman's research appear to be investors in Intellectual Ventures and/or suppliers of the company's patents.

87. Cf. Jay P. Kesan, *Transferring Innovation*, 77 *FORDHAM L. REV.* 2169, 2193 (2009) (noting the enduring perception of universities as patent trolls and calling the perception “something that universities and their TTOs should take great care to avoid”); Arti K. Rai, *The Increasingly Proprietary Nature of Publicly Funded Biomedical Research: Benefits and Threats*, in *BUYING IN OR SELLING OUT? THE COMMERCIALIZATION OF THE AMERICAN RESEARCH UNIVERSITY* 117, 119 (R. G. Stein ed., 2004) (noting that universities and their licensees have asserted their basic research patents “in a manner that hinders rather than facilitates commercial development.”).

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[46:169]

JR: Why is that? Just because . . . ?

Roberto: [The attorneys] we hired were people who were very, very good at negotiating settlements, but were not in any way, shape, or form prepared to go to court . . . We're not complaining. They were successful. It just didn't feel right to the people in the office.

Roger—who previously worked at a large state university's TTO, but recently had accepted a leadership position at a different university's TTO—said he saw contingency fee litigation as “really almost the only way to go” for his new institution, given its lack of resources. He recognized that others often view the arrangement dubiously, but he said the arrangement's unfavorable perception would not deter decision-makers at his institution from pursuing litigation on a contingency fee basis if they felt the university had a great case. Indeed, he noted that contingency fee litigation may hold the most appeal for universities that are open to pursuing patent infringement litigation but do not have the money or internal commitment to pay out-of-pocket for legal fees.⁸⁸

Of course, contingency fee arrangements are not without risks or consequences, as Roberto recognized by saying suing on contingency “just didn't feel right to the people in the office.” His comment touches on the limitations inherent in the two most common payment models for outside counsel: whereas fee-for-service attorneys are financially incentivized to over-prepare for trial (thereby costing the university more money), lawyers working on contingency may under-prepare for trial, in hopes of achieving early payment through settlement. While universities unquestionably save money in the short-term by engaging attorneys on a contingency fee basis, in the long-term such arrangements may endanger universities' reputation as well-prepared litigants if the case does not settle and instead goes to trial. For public universities in states like Hans's—where the state attorney general must approve all major litigation decisions contemplated by the state's public universities—the reputational risks to the institution may counsel against

88. For example, an in-house counsel of a large public university told me at the meeting that her university will not pay any amount of money to bring patent infringement actions. However, she said it is not fundamentally opposed to bringing them, and mentioned contingency fee arrangements as a viable option. See also Schwartz, *supra* note 48, at 376-377 (noting that contingency fee representation solves the problem of cash-strapped universities having to pay hourly-billing patent litigators).

a university's bringing a case on contingency, despite the potential cost savings.

C. *"I Mean Really": Money Matters*

When asked what factors motivate their institution to bring a patent infringement lawsuit, all participants mentioned the hope of receiving money through a damages award or out-of-court settlement. This finding would be unremarkable except that nowhere does AUTM, the National Academy of Sciences committee, or the authors of the Stanford University white paper explicitly mention the pursuit of revenue as a reason to pursue patent infringement litigation (although concern for "disregard by an infringer of the institution's legitimate rights"—a potential motivation listed in the report issued by the National Academy of Sciences committee⁸⁹—arguably may be viewed as code for revenue generation). But as Roberto told me, "We're not gonna go and sue unless there's, you know, that we think that there's money there." Hans agreed. "If you feel like there's a payday, then you should litigate," he said. Roger expressed this belief even more concisely when I asked him why universities sometimes choose to enforce their patents by asserting them in infringement actions: "Uhhh, financial return. I mean really." I understood his tone either as cheeky—he was saying what people know but do not say publicly—or baffled, in that he could not believe I did not know the answer to my question.⁹⁰

After thinking about it further, Roger also mentioned the importance of projecting "the appearance that you're actually sticking up for your IP," and "being able to go back to the faculty and say, 'Hey, look. We're standing behind the IP.'" But considerations of pleasing faculty inventors were secondary for most participants, if mentioned at all. As Roger explained, the institution is always asking, "What do we stand to gain from this? You know, are we going to knock out a competitor to our licensee, allowing our licensee to get more market share and pay us more royalties?" Several participants indicated that if the potential financial return through participation were not great, their institution would be disinclined to pursue the litigation, even if the facts

89. See NAT'L RESEARCH COUNCIL, *supra* note 43, at 8.

90. Participants' focus on extracting revenue from patents by litigating them is consistent with what some scholars view as the general approach universities take toward technology transfer. See, e.g., Kesan, *supra* note 87, at 2169 (finding that "university technology transfer activities continue to be predominantly patent-centric and revenue-driven with a single-minded focus on generating licensing income and obtaining reimbursement for legal expenses.").

were otherwise in their favor. Perhaps unsurprisingly, no one mentioned “disregard by an infringer of scientific or professional norms and standards” as a motivating factor to sue, as suggested by the National Academy of Sciences committee.⁹¹ According to the participants, pursuing a patent infringement case always involves practical considerations of money, often more plainly than ethereal concerns for advancing mission.

As part of the monetary calculation, one participant mentioned that the amount of legal fees his university would have to pay to participate as a plaintiff in patent infringement litigation is more important to university decision-making than the amount of money the institution stands to gain from bringing such an action. Sam explained that his university is more concerned with stopping “serious infringement, serious damage to the university or a business partner” than it is viewing litigation as a moneymaking opportunity. Because of his university’s not unusual sensitivity to costs, who pays for the litigation matters, and the university attempts to broker cost-sharing arrangements for litigation whenever possible (others also mentioned cost sharing with licensees as a common approach, and that individual licenses often dictate who will pay and how much they will pay). Sam said it would be hard to imagine his university being disinclined to participate as a plaintiff in a patent infringement lawsuit if its licensee were willing to bankroll the litigation.⁹² His advice to other institutions that might be considering bringing their first enforcement action touched on this concern for costs. Participating as a plaintiff in patent infringement litigation is “like renovating an old house,” he said. “Double or triple your budget for time and money and effort.”

D. Exclusive, Non-Exclusive, and Unlicensed Patents

Participants mentioned that the licensing status of the infringed patent—i.e., whether the patent is exclusively licensed, non-exclusively licensed, or not currently licensed—impacts how their universities view the proposition of bringing infringement litigation. Some scholars have criticized exclusive licenses of university patents as failing to maximize

91. See NAT’L RESEARCH COUNCIL, *supra* note 43, at 8.

92. Past analysis of historical licensing data provided to AUTM by its university members shows a statistically significant relationship between a university’s expenditure of legal fees and the likelihood that a licensee will reimburse the university for its legal fees. See Kesan, *supra* note 87, at 2169. However, as mentioned earlier, AUTM’s annual licensing survey specifically excludes significant litigation expenses from its definition of legal fees. See Rhoades, *supra* note 74 & accompanying text.

social returns on federal R&D investment.⁹³ Regardless, many universities find exclusive licenses attractive because companies are willing to pay more for the enhanced market share that necessarily accompanies the ability to exclude competitors.⁹⁴

Hans identified an additional benefit to universities choosing to license their patents exclusively rather than non-exclusively: with exclusively licensed patents, the university is likely to bear fewer enforcement costs and responsibilities. He indicated that his university avoids non-exclusive deals in part for that reason:

We're interested wherever possible in not being the direct litigants, and that has shaped our philosophy about how we license. So we might have a choice between doing exclusive licenses or non-exclusive licenses. All things being equal, we'd rather do exclusive licenses because when we do a non-exclusive license, we really don't shed that responsibility for protecting IP on behalf of our non-exclusive licensees.⁹⁵

The suggestion that some institutions may choose to license their patents exclusively as opposed to non-exclusively, largely to avoid or diminish the burden of enforcement costs and obligations, is startling yet previously unexplored by scholars.⁹⁶ Roberto echoed Hans's preference for exclusive licenses for a related reason. "If we don't exclusively license [a patent]," he said, "there's probably not enough money to make [bringing litigation] worth it." He indicated that his institution had never sued over a patent that was licensed non-exclusively.

I also explored with participants whether their institution ever had sued or would consider suing over an unlicensed patent (i.e., a patent for which no company has taken a license to practice the technology the

93. See, e.g., MOWERY, ET AL., *supra* note 6, at 191 (criticizing exclusive licenses as being oftentimes detrimental to the public good and urging that universities pursue "nonexclusive licensing agreements for the fruits of publicly funded research whenever possible").

94. See, e.g., WEISBROD, ET AL., *supra* note 11, at 158 (stating that "the greater the monopoly power the licensee is granted, the more it would pay for the patent license").

95. His understanding of patent law on this point is correct. See *Sicom Sys., Ltd. v. Agilent Techs., Inc.*, 427 F.3d 971, 976 (Fed. Cir. 2005) ("A nonexclusive license confers no constitutional standing on the licensee to bring suit or even to join a suit with the patentee because a nonexclusive licensee suffers no legal injury from infringement.").

96. However, ultimately whether a court could compel a university to participate as a plaintiff in a given patent infringement lawsuit turns on whether the university owns "all substantial rights" to the patent in suit. See *supra* notes 23 & 24 and accompanying text. For previous empirical studies of university licensing, see for example, Kesan, *supra* note 88; Powers, *supra* note 14; Powers & Campbell, *supra* note 14; Thursby, Jensen, & Thursby, *Objectives, Characteristics and Outcomes of University Licensing*, *supra* note 14; and Thursby & Thursby, *Who Is Selling the Ivory Tower?*, *supra* note 14.

patent discloses). Nearly all expressed hesitancy to do this, although one took the position that universities should at least be willing to consider doing it, even if it means evoking the image of the troll. Roger said: “I understand if you don’t have licensed patents that it may be perceived, you know, this trolling issue. I’m not sure I 100% agree with that. I think you need to enforce patents, period. Whether or not they’re licensed is a factor, but it shouldn’t be a major factor.” Lawsuits brought over an unlicensed patent could mean that the university is pursuing what Simon aptly termed an “assertion licensing” strategy—i.e., initiating infringement litigation as a means by which to license patents or, if the case does not settle, obtain rents through a damages award. Suits involving an unlicensed patent also could mean that a prospective licensee declined to license the university’s patent, yet went ahead and practiced the patented technology anyway, thereby effectively inviting the lawsuit. Whatever a particular university’s reason for bringing an infringement action over an unlicensed patent, such cases are not hypothetical: indeed, nine American universities filed ten different cases over unlicensed patents in the two-year period from 2009 through 2010.⁹⁷

In the prevailing complex patent ecosystem, rife with secondary markets for patents,⁹⁸ examining the nature of a university’s licensee may in fact be more telling than inquiring whether there is a licensee for any given university patent that is litigated. As several industry vendors mentioned to me at the AUTM meeting, litigation management companies have developed a business model aimed at assisting universities wary of asserting their unlicensed patents.⁹⁹ In such arrangements, a litigation management company creates a special NPE for the purpose of receiving an exclusive license from the university to an unlicensed patent. The arrangement is not structured in the typical way, where the licensee intends to produce (or is already producing) a product covered by the patent, and in turn generates royalties for the university from sales of the product. Instead, the NPE exists solely for the purpose of acquiring all substantial rights to the university’s

97. Rooksby, *supra* note 21, at 662. Relatedly, thirty-four percent of all patent infringement lawsuits brought by universities from 1973 through 2010 did not include a licensee co-plaintiff (although not all of these cases necessarily involved unlicensed patents). See Rooksby, *supra* note 33.

98. See generally Chien, *supra* note 83 (describing the secondary market for patents); Ewing & Feldman, *supra* note 18 (same).

99. An example of such a company is General Patent Corporation, which specializes in enforcing university patents. See GENERAL PATENT CORP. (2011), <http://university.generalpatent.com/>. Poltorak, *supra* note 9, is the company’s CEO.

unlicensed patent and asserting an infringement action based on it. This arrangement effectively transfers university ownership of the patent in exchange for a contractual right to a portion of any proceeds generated by the NPE in the litigation.¹⁰⁰

One attribute of this type of arrangement is that it removes the need for universities to participate as named plaintiffs in the ensuing infringement actions. Another is that it typically requires no out-of-pocket costs from universities, as the entire enforcement activity is structured on a contingency fee basis.¹⁰¹ Should any money be returned, the university receives a portion of it.¹⁰²

Several participants confirmed the general contours of this type of arrangement, although all said their universities never had engaged in it. Sam surmised that it is probably more popular with small universities lacking the financial or political capital to litigate a patent that they have not been able to license.

E. Tigers Take Bribes? Infringer Identity and Retribution

Participants cited a prospective defendant's identity as relevant to their universities' decisions concerning patent enforcement. A frequently mentioned example was concern for the research conducted by faculty unrelated to the invention and commercialization of the infringed patent. Hans, for example, professed being sensitive to the concern that a potential defendant that also sponsors faculty research might withdraw its funding if the university sues the company. He defended this sensitivity by saying that "just because you have patent rights doesn't mean you have to litigate against someone who's

100. The Bayh-Dole Act places limitations on the assignment of university-owned patents. Under 35 U.S.C. § 202(c)(7)(A), universities may not assign patents developed with federal funds without the approval of the federal agency that provided those funds, unless the "assignment is made to an organization which has as one of its primary functions the management of inventions." While the exception likely was drafted with assignments to established, university-affiliated research foundations in mind (like, e.g., WARF), the wording of it arguably does not preclude application to NPEs created for the express purpose of managing inventions through asserting infringement litigation.

101. One vendor told me that litigation management companies commonly seek outside investors to help fund incidental costs related to this type of enforcement activity. These investors then share in any returns generated by the activity.

102. It bears noting that the Stanford white paper—which AUTM and the National Academy of Sciences committee endorsed—urges universities to be mindful of arrangements such as these, stating that universities "would better serve the public interest . . . by requiring their licensees to operate under a business model that encourages commercialization and does not rely primarily on threats of infringement litigation to generate revenue." See Leland Stanford Univ., *supra* note 39, at 8.

infringing,” although he recognized that “you’re opening the door for others to infringe” by allowing this concern to dissuade one’s institution from litigating.

Roberto also identified infringer retribution as a potentially deterring factor, although his institution has established financial resources intended to neutralize its impact:

A couple of times when we have filed suit, of course, then the company we sue pulls money from our [faculty] investigators. And we have made it a policy when that happens, we go and make them whole So I think with our latest litigation, there are at least four, maybe six, professors that we had to make whole.

No other participant indicated that his institution has a policy of “making whole” faculty who lose sponsored research funding because of their university’s decision to sue for infringement the company that funds the research. Sam and Roger agreed, though, that the infringer’s identity can be a deterring factor. “No one would admit that proudly or in a steadfast, outward manner,” Sam said, “but that has been part of the discussion I have encountered from time to time.”

Simon was the lone participant who bristled at the notion of taking a defendant’s identity into consideration in deciding whether to sue, mostly because of the signal he believes it could send to other potential licensees. As he described:

I get concerned when I hear implications that people say, well, we’ve got this major research partner and donor, and why would we sue them? Especially when they’re infringing rights we granted to another partner, especially a small partner. The first day a university says, “I’m sorry, I don’t wanna sue and support you, small business, because your big-business competitor is gonna take away all my research dollars,” that’s a huge nail in the coffin of university technology licensing, because why would a venture capital company say, “I’m gonna put my money into this small company. I know we’re probably likely to have to sue, because we’re trying to make a constructive change, but there’s this big industry out there, and they can give ten million dollars to the university. Not a problem.” So they give you ten million dollars to make the litigation go away. . . . That toothless tiger is worse when it’s not just a toothless tiger, it’s willing to take a bit of a bribe—an inducement not to participate.

Simon expressed further concern that faculty inventors (who, as mandated by the Bayh-Dole Act and institutional IP policies, receive a

percentage of royalties the university derives from any patents that list them as inventors)¹⁰³ could sue the university for failing to support their rights if the university elected not to pursue an infringer.

The participants' recognition that patent enforcement may bring financial ramifications for the activities of university faculty distant from the issues of the litigation speaks to the complexities of varying and sometimes conflicting university missions. Universities facing threats or perceived threats that faculty will lose research funding if a patent infringement lawsuit is brought against an influential company no doubt confront a difficult decision: pursue an infringer to please a licensee and/or to receive financial rewards, or yield to a threat that could affect unrelated faculty research funding. Is the former foolish? Is the latter a bribe (as Simon suggested)? Universities in this dilemma appear to face a Morton's-fork choice involving complicated allegiances to money and mission.

F. When Mission Means Money, Tigers Bare Teeth

All of the participants grappled in some way with harmonizing the revenue-generating potential of patent infringement litigation with the socially beneficial aims of the university. *Commercialization* and *mission* were the leading buzzwords in this process of explanation. Several noted that their universities had made technology commercialization a goal of their institution's research mission, and therefore felt that litigation over the commercialization of technology was implicitly condoned. Although participants recognized that some view patent infringement litigation as an inappropriate activity for universities to engage in as plaintiffs, none shared this belief. Most, in fact, described patent infringement litigation as consistent with their institution's research mission, suggesting that they had heeded the pronouncement from the authors of the Stanford University white paper, that litigation should be initiated only if there is a "mission-oriented rationale for doing so."¹⁰⁴ Hans's description—in response to a question about potential public relations concerns raised by suing for infringement—is emblematic:

103. See 35 U.S.C. § 202(c)(7)(B) (2012) (requiring "the contractor to share royalties with the inventor"); see also Margaret T. Stopp & G. Harry Stopp, Jr., *The Enforcement of University Patent Policies: A Legal Perspective*, 24 SRA J. OF RES. ADMIN. 5 (1992).

104. Leland Stanford Univ., *supra* note 39, at 6.

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Hans: Do you mean, would we be concerned about suing someone, because people could say, universities shouldn't sue?

JR: Right, that's what I'm getting at.

Hans: No, no, we're okay. You know, we just gotta write the correct press releases. You know, 'cause it allows people to understand that we're doing this because it's what the patent system is supposed to allow us to do. It's important to our mission. We just have to tie it back to our mission. So, yeah, I'm not concerned about that.

JR: So suing could be OK if you do it consistent with the research mission?

Hans: Oh, it's absolutely consistent. I mean, [our university] has as part of its mission, commercializing technology. It's in the mission statement. It's unusual. Educating, writing, doing service, you know, teaching, graduating students; and commercializing technology. It's one of the things we do.

When commercialization is the goal, participants indicated that bringing patent infringement litigation must be an available option, even if the activity rankles some faculty members or offends others' notion of what a public university ought to be doing with its resources. Although Hans understands why some faculty may object to the activity, ultimately he is not influenced by their concerns:

I can easily understand why my colleagues would be nervous about suing. It's something that really puts it out there in people's faces that we're doing commercialization. . . . The faculty—there are concerns that commercialization is wrong. They came to the university to get away from those kinds of considerations. So . . . there's a little bit of a cultural clash, which we resolve by commercializing technology in a way that serves the mission of the university and doesn't pull off in a different direction.

. . . .

That's just how we have to do it. You know, the founding fathers put patent protection and copyrights in Article 1, Section 8, of the

Constitution. They thought having patent rights was a good idea. . . . We're supposed to make the world a better place. And if we have to use commercialization—which is a perfectly legitimate set of practices—to achieve our mission, we should.

Hans's references to the Constitution and making the world a better place illustrate what I saw as a common attempt among participants to find a respected hook on which to hang the hat of university patent enforcement, which otherwise often gets lumped as one of several uncelebrated "practices" within the vague meaning of the word *commercialization*. Simon also situated the activity within a higher calling, citing President Barack Obama's focus on university innovation as effectively requiring universities to consider patent infringement litigation. "At some point," he said, "if you believe in [the White House's innovation agenda], you've gotta be willing to fully support all elements of IP protection, which includes litigation. And if you wanna talk the talk, you better walk the walk."

Simon's comment about "walking the walk" implicitly references the economic realities of patenting. Patents are blunt instruments that have been likened to toll booths.¹⁰⁵ "The threat of damages and, typically, injunctive relief, is a proverbial club useful in securing license fees and other payments from actual and potential infringers."¹⁰⁶ Failure to enforce a patent could mean the loss of the premium conferred to a university from seeking and obtaining the patent, as "the efficacy of a patent depends on its owners' ability to police their property."¹⁰⁷ Simply put, a company that infringes a university's patent may perceive little incentive to stop infringing unless sued.

Participants very much appreciate the foregoing constraints. "That's why you file patents, is to support them and enforce them," Roger said. "You know, big places, when you file a patent, there's gonna be infringement. It's just the nature of the beast, and there's real advantages to stepping up to the plate and enforcing it," he said. Sam agreed, stating that "the reason to get patents in the first place is to control their use in the market." Simon acknowledged these realities in

105. See Walter W. Powell, Jason Owen-Smith & Jeannette A. Colyvas, *Innovation and Emulation: Lessons from American Universities in Selling Private Rights to Public Knowledge*, 45 MINERVA 121, 123 (2007) (stating "patents represent a toll booth"); ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 51 (2004) (calling patents "blunt instruments").

106. Sichelman & Graham, *supra* note 53, at 118-119.

107. Owen-Smith, *supra* note 7, at 94.

the frankest of terms:

A patent without enforcement is a piece of paper with Dave Kappos's signature on it. That's all it is, you know. It's a very expensive piece of paper. I can get Dave Kappos's signature for a lot less than \$30,000. . . . If you're not willing to enforce it, that's all you've got.¹⁰⁸

Although participants understand the economic realities of patents, and in fact view their institutions' participation as plaintiffs in patent infringement litigation as essentially an inevitable consequence of engaging in technology transfer, several acknowledged that their university's leadership is not always receptive to pursuing infringement litigation. On the one hand, university administrators prefer (and some may even expect) their TTOs to generate revenue; on the other hand, those same administrators not always are comfortable admitting to various constituencies that revenue generation or commercial goals drive or should drive most aspects of their TTO's mission. However, all participants stated that when fostering commercialization is part of a university's stated or implied mission (as increasingly is the case),¹⁰⁹ initiating patent infringement litigation occasionally can further that mission, and is not by definition inconsistent with it. Participants may have to remind administrators that they did not create the patent system or the commercialization framework contemplated by the Bayh-Dole Act; however, they are constrained to operate within that system and framework, which means using patents to exploit the limited monopoly they confer on their holders, be it through licensing or litigation.¹¹⁰ As Simon described:

108. At the time of data collection, David Kappos was the Director of the United States Patent and Trademark Office, the governmental entity that awards patents. Depending on various factors, obtaining a patent can cost anywhere from \$10,000 to \$45,000 or more in legal fees, and thus Simon's reference to \$30,000.

109. See, e.g., Michael M. Crow, *Beyond the "New Normal" in American Higher Education: Toward Perpetual Innovation*, in SMART LEADERSHIP FOR HIGHER EDUCATION IN DIFFICULT TIMES 50-69, 58 (David W. Breneman & Paul J. Yakoboski eds., 2011) (calling commercialization "the most obvious avenue to move academic research at the 'edge of newness' from the laboratory to the marketplace.").

110. Should a university elect to retain title to an invention discovered in the course of research funded in part with federal money, the university *must* diligently seek to patent the invention, unless the agency funding agreement provides otherwise. See SEAN O'CONNOR, GREGORY D. GRAFF, & DAVID E. WINICKOFF, LEGAL CONTEXT OF UNIVERSITY INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER 29 (Nat'l Research Council: The Nat'l Acad. 2010), *available* *at*

http://sites.nationalacademies.org/xpeditio/groups/pgasite/documents/webpage/pga_058897.pdf.
Sponsored research agreements typically place universities under the same obligation.

If our mission is to get technology out there to benefit the public, one way we do that is we engage the patent system to protect it so that others will invest money. Because of that, we have the ability to exclude competitors for a limited time. You've got to buy into the notion that the way you get that monopoly is by enforcing those patents. If you don't understand that, you've missed the principle of this element of our mission.

That's just the rules of the game. "You like that royalty income. We don't talk about the money. It's not about the money. But trust me, you'd like me to bring several million dollars a year more into the university." You've got to understand it comes with that price. If you're not willing to play that game, then that money isn't coming, and you won't be able to serve that part of the mission effectively. At some point, it's part of it, in my mind.

While the complex union between mission and money goes undeclared at many universities engaged in patenting and technology transfer, comments from participants in this study unveil what some within higher education may view as an uncomfortable truth: when revenue generation is a university research mission, patent infringement litigation is an activity that can further that mission. Indeed, it may even reveal it.

G. Summary

The study described in this article was driven by an interest in building understanding of university patent enforcement from the perspective of key decision-makers at universities recently involved as plaintiffs in patent infringement lawsuits. Points of inquiry included probing participants for the main factors or constraints their universities consider in determining whether to enforce their patents through infringement litigation, as well as gaining insight into institutional balancing of revenue generation and allegiance to university research mission through the pursuit of patent infringement litigation.

Findings suggest that some universities view participation as plaintiffs in patent infringement litigation as condoned or even mandated by their research and commercialization missions, despite what some critics view as the activity's incompatibility with the notion of a university's public-serving mission. On a practical level, revenue generation is often a principal motivator for universities that choose to enforce their patents through infringement litigation, even though industry literature only indirectly references litigation's revenue-

generating potential. In this regard, when it comes to enforcing patents, universities' research goals and revenue-generating goals seem deeply if not inextricably intertwined.

The high cost of legal fees, as well as concern for being viewed as overly litigious (troll-like), may provide disincentives for some universities contemplating pursuit of patent infringers. While contingency fee arrangements with outside law firms can help universities counter the high cost of enforcing their patents in court, reputational risks related to these arrangements may deter their use. Additionally, the identity of would-be defendants may cause some institutions to abandon pursuit of their infringement claims out of concern for retribution to the university, particularly with respect to sponsored research funding.

The nature of the infringed patent (i.e., whether it is exclusively licensed, non-exclusively licensed, or unlicensed) can impact decision-making as well. Concern for the responsibility and costs of litigating non-exclusively licensed patents may lead some institutions to favor an exclusive licensing strategy for their patents, on the belief that doing so will save them money and may even spare their involvement as a plaintiff in any infringement action. Although many universities may be hesitant to litigate unlicensed patents, shrewd companies have devised a way for them to turn unlicensed patents into putatively licensed ones, thereby contravening the Bayh-Dole Act's purposes and masking the character of what some may view as speculative enforcement activity.

V. CONCLUSION

Several participants noted that universities as a group tend to avoid discussion of patent infringement litigation as an aspect of technology transfer. As Simon described it, "It's one of those things we don't like to talk about. We like to talk about patents and licensing. But we don't like to talk a lot about [litigation]." Examining university patent enforcement may be uncomfortable for some universities and policymakers, but overlooking the phenomenon only undermines comprehension of the net effects of university involvement in technology transfer.

While quantitative data are growing, the study described here is the first dedicated qualitative attempt to build understanding of the nuanced factors that impact university decisions concerning patent enforcement. Its findings should encourage decision-makers at universities heavily engaged in patenting and technology transfer (as well as those just

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beginning to build capacity in these areas) to critically examine institutional goals and dispositions to use patent infringement litigation to protect and enhance university research missions in the public interest. In short, universities must confront a difficult but inescapable question: When it comes to enforcing our patents, will our university be a tiger with teeth?

APPENDIX A – INTERVIEW QUESTIONS

Tell me about your current position and the work that you do.

When I say “university initiation of patent infringement litigation,” what does that mean to you?

In what capacities within your institution have you been involved with that activity in the past?

I’m interested in getting your thoughts on the activity in general. What factors do you believe motivate universities in general to litigate patents?

Are those the same factors that typically motivate your institution to litigate patents?

How important would you say is the question of who pays legal fees to your institution’s decision to litigate patents?

How important would you say are the opinions of groups like students, faculty, inventors, licensees, and the general public concerning planned patent infringement litigation to your institution’s decision to initiate such litigation?

How important is the potential for revenue generation to your university in deciding whether to sue for patent infringement?

How big would the potential return to your institution from participating in an infringement suit as a plaintiff have to be in order to make the suit “worth it,” in your opinion?

Do you believe that initiating infringement litigation is an inevitable activity for institutions that have a significant number of licensed patents? Would you put your institution in that category?

Do you see the activity as central to, or in furtherance of, your institution’s research mission?

Do you know if your institution budgets for bringing patent infringement suits? If so, could you tell me how your institution plans

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or prepares for the activity?

What is the primary factor that would likely deter your institution from bringing a patent infringement lawsuit, assuming you were confident that a company were infringing? Or do you always bring lawsuits if you think you've located an infringer?

What's the highest level of individual within your institution that would have to sign off on a decision to bring a patent infringement suit (e.g., VP for Research, President, full governing board vote, vote of chair only, etc.)?

What role, if any, does any separately incorporated research entity controlled by your institution play in any decision to bring a patent infringement action? Does that entity ever participate as a plaintiff in combination with, or instead of, your institution in such suits?

Are there any pieces of advice or words of caution that you might give to other institutions that may be contemplating bringing a patent infringement action?

How frequently is this activity discussed within your institution or at industry gatherings like AUTM's annual meeting, would you say?