# TOWARD A FAIR SOCIAL USE FRAMEWORK FOR COLLEGE AND UNIVERSITY INTELLECTUAL PROPERTY

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#### ABSTRACT

In 2014, Penn State conducted the nation's first college or universityrun auction of patent rights. According to university officials, the auction was arranged to dissuade patent trolls from purchasing the rights. This may have limited its success. The tradeoff of fewer licenses in order to avoid supporting patent trolls may have societal benefits, but it arguably harms certain stakeholders such as faculty-inventors and the college and university community. Similar concerns arise in the context of trademark licenses limited to avoid unfair labor conditions, copyright policies that ensure the flow of information by restricting authors, and patent licenses crafted to preserve public health. Is there a unifying strategy that can help a college or university determine how to balance the competing interests of its beneficiaries and the public?

This article explores the responsibility of college and university administrators, technology managers and licensing officers to consider broad stakeholder impacts in intellectual property ownership and enforcement decisions. It finds that there is a lack of coherency in policies, in part due to the failure to comprehensively assess college and university IP. Moreover, there is outright hostility toward a national regulatory option that could add uniformity. This article provides guidance by proposing a balancing framework that ties together various forms of intellectual property. It includes example tools based on the concept of copyright "fair use" that can be used to achieve an optimal blend of social good and local income.

#### INTRODUCTION

In March 2014, Penn State announced its intent to host the nation's first college or university-based patent auction.<sup>1</sup> The idea was to take approximately seventy patents in the university's portfolio and auction exclusive licenses for a minimum starting bid of \$5,000. If successful, the auction would prove a revenue windfall. The bidding was open online between March 31 and April 11 at a website created by the university. The eventual bidding was less than frenzied. In the end, the university received only one bid on a pair of patents.<sup>2</sup> In conceding some disappointment, the university declared it a learning opportunity more than a financial success.<sup>3</sup> But the university put forth another distinct position as well: the lack of revenue was an acceptable exchange for avoiding patent trolls.

The potential connection between colleges and universities<sup>4</sup> and patent

4. This article uses the term "college and/or university" as a catch-all for any

<sup>1.</sup> *Penn State to auction intellectual property licenses*, PENN STATE NEWS (Mar. 4, 2014), http://news.psu.edu/story/306440/2014/03/04/research/penn-state-auction-intellectual-property-licenses.

<sup>2.</sup> Goldie Blumenstyk, *Penn State's Patent Auction Produces More Lessons than Revenue*, CHRON. OF HIGHER ED., May 1, 2014, http://chronicle.com/blogs/bottom line/penn-states-patent-auction-produces-more-lessons-than-revenue/.

<sup>3.</sup> *Id.* In November 2014, Penn State announced plans for a second auction to begin on December 8, 2014. David Pacchioli, *Penn State plans second patent auction*, PENN STATE NEWS (Nov. 6, 2014), http://news.psu.edu/story/333600/2014/11/06/

research/penn-state-plans-second-patent-auction. The auction was held from December 8 to December 11, but there are no public reports of the results. Still, there was some criticism of the patents available, suggesting a collection of technology more varied than the physical sciences. *See, e.g.*, Daniel Nazer, *Stupid Patent of the Month: Who Wants to Buy Teamwork From Penn State*, ELEC. FRONTIER FOUND. (Nov. 24, 2014), https://www.eff.org/deeplinks/2014/11/stupid-patent-month-who-wants-buy-teamwork-penn-state.

trolls has been well understood for some time. Because colleges and universities generally do not make use of the patentable inventions their faculty members develop, it is in the university's interest to sell or license the technology to any outside company willing to pay. Unlike a private firm, a college or university will probably not end up on the infringing side of the equation. The rational strategy is to make deals with whoever will pay. However, such loose licensing can play right into the hands of a patent troll (a.k.a., patent assertion entity or patent aggregator), a firm that exists only to sue others for patent infringement.<sup>5</sup> For that reason, the Association of American Universities is officially opposed to members who license to trolls. Penn State acknowledged this concern from the outset and specifically designed the patent auction to be unpalatable to trolls by requiring use of the invention by the bidder, and requiring Penn State to control any litigation for a period of time. Most other colleges and universities would applaud these restrictions. This was a classic example of college and university technology managers acting in accordance with their perceptions of social responsibility.

But does a college or university's anti-troll strategy appropriately serve its stakeholders? Consider that in thwarting trolls, a college or university may be limiting itself to fewer licenses and less revenue. Inventions that could remain protected and royalty-producing may be abandoned. It is not only the college or university coffers that suffer; most colleges and universities have policies that permit their employee-inventors to share in the revenue.<sup>6</sup> The lost revenue will also not offset student tuition costs. And in the case of state colleges or universities, there will be less return on the investment of the citizens of the state. By putting the goal of preserving access and avoiding trolls above such stakeholders, colleges and universities are making a choice with definite tradeoffs.

In essence, this is just another chapter in the ongoing debate between the social obligations of the non-profit college and university versus the desire to commercialize the valuable information it produces. The issues are not limited to patent trolls. Colleges and universities are called upon to balance competing interests whenever they engage in socially responsible transfer or licensing whether it is patent rights that take into account access to med-

non-profit institution of higher education including "universities," "colleges," and "schools."

<sup>5.</sup> It is possible that colleges and universities have already unwittingly supported patent trolls in other deals. *See* Daniel Engber, *In Pursuit of Knowledge, and Profit*, SLATE (May 7, 2014), http://www.slate.com/articles/technology/history\_of\_innovation/2014/05/patent\_trolls\_universities\_sometimes\_look\_a\_lot\_like\_trolls.html.

<sup>6.</sup> See, e.g., An Inventor's Guide to Technology Transfer at Penn State University, PENN STATE UNIV. at 32, available at http://www.research.psu.edu/patents/education -and-training/PSU-Inventors-Guide-to-Technology-Transfer.pdf (stating that inventors receive 40% of the royalties received from Penn State University patents).

icines, trademark rights that consider the labor standards of apparel manufacturers, or copyright policies that promote open access over traditional journal publishers. What principles should colleges and universities apply to achieve the right balance between stakeholder interests and the public?

This article will consider the non-profit college or university's appropriate strategy related to intellectual property commercialization in view of its public mission. It undertakes a comprehensive approach to intellectual property rights that has heretofore been missing in the literature, as well as traditional college and university management. In Part I, the article will describe the emergence of the privatization model of college and university intellectual property, fostered by the Bayh-Dole Act and enhanced by the increasing profit potential of information. Part II will define the issue's broad scope by presenting examples in which colleges and universities have limited the reach of their intellectual property rights to serve a social goal. In Part III, the article will identify a college or university's stakeholder responsibilities derived from public funding sources and unique categories of beneficiaries. In Part IV, the article will describe the failure of colleges and universities to respond to stakeholders and their resistance to regulatory alternatives. Part V will consider the optimal analytical construct for colleges and universities to use in favor of abandonment or acquiescence in the face of social impacts. It will propose a "fair social use framework" for college and university IP and provide an example of an evaluation mechanism that can be used to ensure continued revenue while avoiding abuse.

# I. COLLEGES AND UNIVERSITIES EMERGE AS IMPORTANT IP RIGHTS HOLDERS

Universities and colleges, particularly in the United States, have longserved as incubators for the basic research critical to the progress of science and industry. States and other stakeholders have begun to realize that capitalizing on the research and development (R&D) information output of colleges and universities has the potential to benefit a wide range of individuals both inside and outside of the institution.<sup>7</sup> Similarly, through various educational products, health care services and, perhaps most importantly, sports teams, colleges and universities can generate valuable brand information and creative content.<sup>8</sup> But information is difficult to appropriate without intellectual property protection. Thus, the desire to plug infor-

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<sup>7.</sup> See Peter Lee, Patents and the University, 63 DUKE L.J. 1, 36–38 (2013) (describing the shift in traditional norms and the recent embrace of university patenting).

<sup>8.</sup> See Kevin Carey, *The Brave New World of College Branding*, CHRON. OF HIGHER ED., Mar. 25, 2013, http://chronicle.com/article/The-Brave-New-World-of-College/138107/ (describing the desire for and complexities in profiting from a prominent college or university brand without diluting it).

mation leaks and retain benefits underlies the rise in college and university intellectual property protection.<sup>9</sup> Coupled with the opportunities created by the Bayh-Dole Act, colleges and universities have emerged as major IP rights holders and occasionally litigants. Their impact on the IP environment can be profound and is now an important component in crafting national policy.

# A. Research Colleges and Universities and Innovation-Based Intellectual Property Capture

Thanks to a model that places great emphasis on science and engineering in addition to a liberal arts education, American colleges and universities serve as the international model for the research institution. International rankings consistently place United States colleges and universities at the top of the list,<sup>10</sup> and a large part of their strength is their dedication to advanced research. Columbia University's Jonathan Cole notes that this is the result of a new model that blended aspects of the German and English college and university systems into a format uniquely structured to innovate and capitalize on scientific learning.<sup>11</sup> Cole notes, "Sixty percent of all Nobel Prize winners in science since World War II have been Americans or foreign nationals working at American Universities."<sup>12</sup> Moreover, many important industry centers like Silicon Valley have their foundations in institutions steadfastly dedicated to cutting-edge research, like Stanford University.<sup>13</sup>

Investment in college and university science and engineering research extends back to early adopters like Johns Hopkins University in the 1800s.<sup>14</sup> Additional support came in the form of the Morrill Acts of 1862

<sup>9.</sup> See, e.g., Maureen Farrell, Universities That Turn Research Into Revenue, FORBES, Sept. 12, 2008, http://www.forbes.com/2008/09/12/google-general-electricent-tech-cx\_mf\_0912universitypatent.html (describing the top patent-revenue generating colleges and universities). To get an idea of the broad ways that colleges and universities attempt to initially capture faculty output, see generally James Ottavio Castagnera, Cory R. Fine & Anthonly Belfiore, Protecting Intellectual Capital in the New Century: Are Universities Prepared?, 1 DUKE L. & TECH. REV. 1 (2002) (reporting the results of a review of 241 randomly selected university employment policies).

<sup>10.</sup> See, e.g., The World University Rankings, TIMES HIGHER EDUC., http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/world-ranking (last visited June 28, 2014); see also QS World University Rankings, QS TOPUNIVERSITIES, http://www.topuniversities.com/qs-world-university-rankings (last visited June 28, 2014).

<sup>11.</sup> Jonathan R. Cole, *The Great American University*, BULL. OF AM. ACAD. 27, 28–29 (2011), *available at* https://www.amacad.org/publications/bulletin/spring2011/great.pdf.

<sup>12.</sup> *Id.* at 29.

<sup>13.</sup> Id. at 31.

<sup>14.</sup> Nicholas Lemann, *The Soul of the Research University*, CHRON. OF HIGHER ED., April 28, 2014, http://chronicle.com/article/The-Soul-of-the-Research/146155/.

and 1890, which provided states with a grant of federal land in exchange for establishing a public institution for the teaching of agriculture, military tactics, and mechanical arts.<sup>15</sup> But the emphasis on research became truly prominent in the American system after World War II.<sup>16</sup> Part and parcel to the increase in college and university interest was a push at the federal level. The National Science Foundation, a major source of college and university research funding, was established in 1950 as a federal support mechanism for basic research.<sup>17</sup> Funding through other government agencies such as the National Institutes of Health also increased in the 1950s and 1960s<sup>18</sup>

The ability to profit from this wave of research production depends on appropriability, and intellectual property rights are the primary mechanism for doing so. For innovative output, patents tend to be the mechanism of initial interest. The desire to profit from college and university investment through patents extends back even before post-World War II emphasis on basic research. At first, many colleges and universities were reticent to consider patents part of academic culture.<sup>19</sup> They resisted knowledge capture in favor of the "communal norms" promoted by academia.<sup>20</sup> But even in the early years of the twentieth century, some colleges and universities did not discourage patenting and adopted a non-commercial approach different from industry.<sup>21</sup>

College and university patenting increased after World War II, and "[b]y the late 1940s most American [colleges and] universities had developed some sort of patent policy."<sup>22</sup> The most innovative institutions remained wary of monopolies and supported public access to important innovations in life sciences.<sup>23</sup> But it was clear that knowledge control through patents was being increasingly buttressed in large part by the shift in federal re-

17. *National Science Foundation History*, NAT'L SCI. FOUND., http://www.nsf.gov/about/history/ (last visited June 28, 2014),

21. Id. at 12.

<sup>15.</sup> ASSOC. OF PUBLIC & LAND-GRANT UNIV., THE LAND GRANT TRADITION 3–4 (2012).

<sup>16.</sup> DAVID C. MOWERY, RICHARD R. NELSON, BHAVEN SAMPAT & ARVIDS ZIEDO-NIS, IVORY TOWER AND INDUSTRIAL INNOVATION: UNIVERSITY-INDUSTRY TECHNOLOGY TRANSFER BEFORE AND AFTER THE BAYH-DOLE ACT IN THE UNITED STATES 23–27 (2004).

<sup>18.</sup> A Short History of the National Institutes of Health, Nat'l Inst. of Health, http://history.nih.gov/exhibits/history/docs/page\_06.html (last visited June 28, 2014) (describing the increase in NIH-related agency budgets from \$8 million in 1947 to \$1 billion in 1966).

<sup>19.</sup> Lee, *supra* note 7, at 10.

<sup>20.</sup> *Id.* at 11.

<sup>22.</sup> Dov Greenbaum, Academia to Industry Technology Transfer: An Alternative to the Bayh-Dole System for Both Developed and Developing Nations, 19 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 311, 336 (2009).

<sup>23.</sup> Lee, *supra* note 7, at 16.

search support from defense to basic science innovation.

B. The Bayh-Dole Transformation

Given the importance of federal funding in late twentieth century college and university research, it is not surprising that a change in federal policy heralded the greatest change in college and university patenting. Through grants, cooperative agreements, and contracts, federal funding now accounts for over half of the money that colleges and universities spend on research.<sup>24</sup> For example, in 2009, the federal government supported about \$33 billion of the total \$55 billion spent on college and university research.<sup>25</sup> The fate of federally supported inventions has had a major impact on the college and university IP presence.

Unfortunately, up until 1980 much of the federal investment in college and university research was underdeveloped and largely not commercialized. Many attributed this to misaligned intellectual property policy that permitted the patenting of federally funded research, but left control of the patents to the federal government. Particularly troublesome was the fact that most federal funding agencies retained title in the patents resulting from the funded research.<sup>26</sup> The government would generally grant nonexclusive licenses based on the notion that it would be improper to allow one company access to a public exclusion right. But obviously such licenses are unattractive to any business that requires exclusivity to recoup investment.<sup>27</sup> Some agencies, such as the United States Department of Defense, would permit patenting by the college or university-recipient, but only if a tech-transfer program existed.<sup>28</sup> Others, like the United States Health, Education and Welfare Department, had a more liberal policy of permitting patenting, but threatened to change from year to year.<sup>29</sup>

In 1980, Congress passed the Bayh-Dole Act<sup>30</sup> to cure the discrepancies between agencies and promote the utilization of federally funded research.<sup>31</sup> The law permitted recipients of federal contracts, grants or coop-

29. Id. at 401-02.

30. Bayh-Dole Act, Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified at 35 U.S.C. §§ 202–211 (2006 & Supp. IV 2010)).

31. Bd. of Trs. of Leland Stanford Jr. Univ. v. Roche Molecular Sys., Inc., 131 S.

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<sup>24.</sup> University Research: The Role of Federal Funding, ASS'N OF AM. UNIV. (Jan. 2011), http://www.aau.edu/workarea/downloadasset.aspx?id=11588.

<sup>25.</sup> Id.

<sup>26.</sup> Gary Pulsinelli, Share and Share Alike: Increasing Access to Government-Funded Inventions Under the Bayh-Dole Act, 7 MINN. J.L. SCI. & TECH. 393, 398 (2006).

<sup>27.</sup> Howard Markel, *Patents, Profits, and the American People — The Bayh-Dole Act of 1980*, 369 N. ENG. J. MED. 794, 795 (2013).), http://www.nejm.org/doi/pdf/10.1056/NEJMp1306553.

<sup>28.</sup> Pulsinelli, *supra* note 26, at 401.

erative agreements to obtain patents and retain the revenues from licensing them. There is a presumption in favor of permitting patenting, though an agency does have the power to retain a patent in "exceptional circumstances."<sup>32</sup> A college or university must disclose inventions resulting at least in part from federal funding, and provide notice before applying for a patent.<sup>33</sup> The patent must contain notice of the government's interest.

Under the current regime, college and university patenting of federally funded inventions is not without restriction. Most importantly, the federal government has "march in" rights that permit compulsory licensing when access is not available.<sup>34</sup> To date, these rights have never been exercised.<sup>35</sup> In addition, the federal government has a non-transferable, paid-up nonexclusive license to use the invention.<sup>36</sup> While colleges and universities do not have the right to transfer patent rights without permission of the authorizing agency,<sup>37</sup> such permission is not routinely withheld.

Since the passage of the Bayh-Dole Act, college and university patenting has increased by a factor of more than ten (see Figure 1).

Ct. 2188, 2192–93 (2011).

<sup>32. 35</sup> U.S.C. § 202(a) (2006).

<sup>33.</sup> *Id.* at § 202(c)(1)–(3).

<sup>34.</sup> Id. at § 203.

<sup>35.</sup> Greenbaum, *supra* note 22, at 410 n.365.

<sup>36. 35</sup> U.S.C. §202(c)(4) (2006).

<sup>37. 37</sup> C.F.R. § 401.1 (2015).

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*Figure 1. University-Owned Patents and Trademarks* 

Sources: See U.S. COLLEGES AND UNIVERSITIES UTILITY PATENT GRANTS, CAL-ENDAR YEARS 1969-2012, USPTO (Mar. 2014), available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/univ/univ\_toc.htm; see also Jacob H. Rooksby, University<sup>TM</sup>: Trademark Rights Accretion in Higher Education, 27 HARV. J.L. & TECH. 349 (2014).<sup>38</sup>

Given the large proportion of college and university R&D funding that is supplied by the federal government, it is reasonable to conclude that the Act played a major role in the increase. Moreover, industry support of colleges and universities has likely increased as a result of the Act. According to the 2012 Congressional Research Service report, industry financing of college and university R&D rose from 3.9% in 1980 to 7.2% in 2000 due to increased industry interest in college and university research.<sup>39</sup> Businesses were no longer concerned that collaborations would be "contaminated" by federal research funds.<sup>40</sup> In the modern era, colleges and universities have become players in the patent environment. And their participation has led to calls for increased monetization.

<sup>38.</sup> Special thanks to Professor Rooksby for sharing the detailed data underlying his paper.

<sup>39.</sup> WENDY H. SCHACHT, CONG. RESEARCH SERV., RL32076, THE BAYH-DOLE ACT: SELECTED ISSUES IN PATENT POLICY AND THE COMMERCIALIZATION OF TECHNOL-OGY 8–9 (Mar. 6, 2012), *available at* https://www.autm.net/Bayh\_Dole\_Act\_Report .htm.

<sup>40.</sup> Id. at 9.

#### C. Branding Institutions

In addition to patent ownership, colleges and universities have moved aggressively into the area of trademarks in recent years.<sup>41</sup> A review of federal trademark registrations over the last forty years demonstrates a significant recent uptick, though not as significant as patents (see Figure 1). Given the fact that trademark rights extend beyond registered marks (e.g., one of the most prominent recent cases involved unregistered college and university colors on t-shirts<sup>42</sup>), the full extent of the increase is impossible to measure. It seems certain, though, that trademarks are an important component of increased college and university interest in intellectual property.

Trademark rights are less about research productivity than image or "brand," but such rights still reflect the outcome of substantial economic inputs. Generally speaking, prominent college and university brands are created by significant investment in quality services. In many cases, this may involve sports teams.<sup>43</sup> However, college and university trademarks can cover any aspect of college or university operations and are attractive to those who simply revere the college or university itself.

According to a recent article by Professor Jacob Rooksby, the rise in college and university trademark protection and enforcement can be linked to events that are independent of the patent explosion.<sup>44</sup> This includes television sportscasts, favorable tax treatment by the IRS, litigation success, and the emergence of licensing consortia.<sup>45</sup> Through this confluence of factors, colleges and universities have found it easier to gain revenue from trademark licensing. In particular, the outsourcing of some of the most complicated enforcement duties to entities like the Collegiate Licensing Company<sup>46</sup> — namely, policing sports merchandise — has enabled the increased monetization of college and university source indicators.<sup>47</sup>

In many cases, college or university trademarks are related to promotion

<sup>41.</sup> See Jacob H. Rooksby, University<sup>TM</sup>: Trademark Rights Accretion in Higher Education, 27 HARV. J.L. & TECH. 349, 367–70 (2014) (describing the reasons for substantial growth in university trademark ownership after 1990).

<sup>42.</sup> Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll. v. Smack Apparel Co., 550 F.3d 465 (5th Cir. 2008).

<sup>43.</sup> See Robert Lattinville, Logo Cops: The Law and Business of Collegiate Licensing, 5 KAN. J.L. & PUB. POL'Y 81, 81 (1996) (describing the impact of sports on university trademark licensing programs).

<sup>44.</sup> Rooksby, *supra* note 41, at 359–69.

<sup>45.</sup> Id.

<sup>46.</sup> CLC represents 200 educational institutions and related events, comprising 80% of the market for college merchandise. *About CLC*, COLLEGIATE LICENSING CO., http://www.clc.com/About-CLC.aspx (last visited Apr. 16, 2015).

<sup>47.</sup> According to the CLC, the marketplace for collegiate licensed merchandise was \$4.59 billion in royalties in 2013. *CLC Names Top Selling Universities and Manufacturers for 2013-14*, COLLEGIATE LICENSING CO. (Aug. 5, 2014), http://www.clc.com/News/Archived-News/Annual-Rankings-2013-14.aspx.

of the institution's educational services or sports teams. Sports merchandising is extremely profitable, applying to valuable goods such as apparel and intangibles such as video games.<sup>48</sup> Such contexts are also attractive to those who would trade off of a college or university's name and reputation, providing the source of extensive litigation.

It is also possible for colleges and universities to retain marks for more social goals. For example, some large colleges and universities operate health care services like hospitals and clinics.<sup>49</sup> Trademarks related to those services protect their reputation and communications, which in turn promote the public purpose of the service. Additionally, colleges and universities may encompass philanthropic endeavors that are promoted with certain words and symbols. For example, Penn State University students hold an annual dance marathon called "Thon" to raise money for research related to childhood cancer.<sup>50</sup> The university considers "Thon" to be a trademark and holds federal registrations for associated phrases such as "for the kids" and "FTK."<sup>51</sup>

Regardless of the purpose, college and university trademark licensing is now a multi-million dollar business that brings significant revenue into institutions large and small.

# D. Creative Content Owners

As large employers, colleges and universities create a great amount of copyrightable content. The content may relate to the administrative and promotional functions of the college or university in the form of operations manuals, college brochures, and software among other items. If created in the scope of an employee's position, any resulting copyrightable works would likely be considered automatically owned by the instruction under the work-for-hire doctrine.<sup>52</sup> In many ways, this is essentially identical to the works produced by any similarly sized company that is not primarily a content creator. However, due to the educational mission and creative drive of its academic employees, colleges and universities produce at least two

<sup>48.</sup> See Rooksby, supra note 41, at 393–94

<sup>49.</sup> *Id.* 

<sup>50.</sup> See, About, THON: PENN STATE IFC/PANHELLENIC DANCE MARATHON, http://thon.org/About (last visited Apr. 16, 2015). Thon has such a strong brand image that sports commentator Keith Olbermann's perceived criticism of the event earned him a week's suspension from his employer, ESPN. See Keith Olbermann off air after tweets, ESPN (Feb. 24, 2015), http://espn.go.com/espn/story/\_/id/12375585/keith-olbermann-critical-penn-state-twitter-do-show-rest-week.

<sup>51.</sup> Pennsylvania State University, Registration No. 4460813 (Registered Jan. 7, 2014 to the Pennsylvania State University).

<sup>52.</sup> See generally Mamie Deaton Lucas, Note, *Copyright, Independent Contractors, and the Work-for-Hire Doctrine:* Community for Creative Non-Violence v. Reid, 67 N. C. L. REV. 994 (1989) (explaining the application and tracing the history of the work-for-hire doctrine).

additional and important categories of works that may be owned by the institution.

A college or university could own educational materials, which often involve a substantial amount of copyrightable content, if their creation is defined as an employee responsibility.<sup>53</sup> Having long ago moved beyond the syllabus and course-pack, college and university educational materials include slides, videos and computer software. Depending on the specific agreement between educators and the institution, ownership may rest with the college or university as a work-for-hire.

Certain kinds of teaching materials, such as business case studies, have long been captured and monetized with copyright.<sup>54</sup> But as colleges and universities embrace online environments and distance education, the value of instructional materials has increased. Web-based interaction has become a core component in the movement to expand classroom teaching to new, remote audiences. By utilizing and repurposing content created in traditional classrooms, colleges and universities can jump-start an online presence. To date, actual profits from online content have been elusive,<sup>55</sup> but hope for the future creates an incentive to preserve copyright protection.

In addition to classroom copyright, colleges and universities can theoretically extend copyright ownership to scholarly materials.<sup>56</sup> Again, the necessary predicate is that scholarly production is within the scope of employment. Many institutions exclude scholarly materials from the scope of employment by agreement or explicit policy, permitting faculty to own articles and textbooks or assign/license the works to others.<sup>57</sup> It has traditionally been a path for additional income for many college and university employees, as well as the economic basis for academic publishers. But colleges and universities are free to redefine the scope of employment to gain rights over such works should the desire arise.

A possible limitation to college and university copyright assertion over academic works is the ill-defined "teacher exception" that has been articulated by a few courts.<sup>58</sup> The notion is that there is something special in na-

58. Eric Priest, Copyright and the Harvard Open Access Mandate, 10 N.W. J.

<sup>53.</sup> *See* Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 740 (1989) (determining that scope of employment is to be understood in light of common law of agency).

<sup>54.</sup> See Copyright Permission Guidelines, HARVARD BUSINESS PUBLISHING, http://hbsp.harvard.edu/list/rights-permissions (last visited, Apr. 16, 2015).

<sup>55.</sup> Tamar Lewin, *Students Rush to Web Classes, but Profits May be Much Later*, N.Y. TIMES, Jan. 6, 2013, http://www.nytimes.com/2013/01/07/education/massive-open-online-courses-prove-popular-if-not-lucrative-yet.html?smid=pl-share&\_r=1.

<sup>56.</sup> Rochelle Cooper Dreyfuss, *The Creative Employee and the Copyright Act of* 1976, 54 U. CHI. L. REV. 590, 598–600 (1987).

<sup>57.</sup> See Robert C. Denicola, Copyright and Open Access: Reconsidering University Ownership of Faculty Research, 85 NEB. L. REV. 351, 379–82 (2006) (discussing the common text of college and university copyright policies concerning faculty).

ture of academic employment that creates the presumption that scholarly work is an expression outside the scope of employment. Moreover, it should also be of little interest to educational institutions.<sup>59</sup> The latter rationale is clearly invalid today.<sup>60</sup> Some have concluded that the exception was superseded by the passage of the 1976 Copyright Act (which detailed the work-for-hire definition without mentioning a teacher exception).<sup>61</sup> No case has applied the exception since then, and it has been mentioned favorably only in dicta.<sup>62</sup> To avoid any ambiguity, many colleges and universities simply define by contract whether scholarly writings and textbooks are works covered by the faculty member's employment relationship with the college or university.<sup>63</sup>

It is very difficult to empirically measure college or university copyright ownership, primarily because copyright protection exists as soon as a work is fixed in a tangible medium,<sup>64</sup> a significantly lower threshold than even use in commerce for trademarks. The vast majority of college and university copyrights are likely not formally recorded. However, there is an incentive to register some works in the U.S. because it is a requirement for enforcing a copyright<sup>65</sup> and a deposit requirement accompanies publication.<sup>66</sup> This incentive is long standing, and thus copyright registrations might reasonably indicate whether there are changing trends in college and university ownership, even if they do not capture the full extent of rights. A review of the copyright registration database demonstrates, somewhat surprisingly, that college and university registrations have remained relatively constant since 1978 (see Figure 2).

TECH. & INTELL. PROP. 377, 403-09 (2013).

<sup>59.</sup> Williams v. Weisser, 273 Cal. App. 2d 726, 734–35 (1969).

<sup>60.</sup> See Elizabeth Townsend, Legal and Policy Responses to the Disappearing *"Teacher Exception,"* or *Copyright* Ownership in the 21st Century, 4 MINN. INTELL. PROP. REV. 209, 243–44 (2003).

<sup>61.</sup> See, e.g., Molinelli-Freytes v. Univ. of P.R., 792 F. Supp. 2d 164, 172 (D.P.R. 2010).

<sup>62.</sup> *Id*.

<sup>63.</sup> *See* Denicola, *supra* note 57, at 379–82.

<sup>64. 17</sup> U.S.C. § 102(a) (2012).

<sup>65. 17</sup> U.S.C. § 411 (2012).

<sup>66. 17</sup> U.S.C. § 407 (2012).



Figure 2. University Owned Copyright Registrations.

This consistency actually comports with the overall steady trend in copyright registrations, which have numbered around 500,000 each year since 1980.<sup>68</sup> The takeaway is that college and university investment in copyright is not insubstantial. Moreover, various interests are impacted by college and university copyright and it is an important part of the rights management conversation.

# E. Capturing the Face(s) of the College or University

An emerging area of intellectual property is the proprietary interest that exists in one's image, voice, signature and personality. Generally referred to as the right of publicity, it is an area of law that straddles privacy and branding.<sup>69</sup> Essentially, it concerns having a say in the commercial use of one's personality.<sup>70</sup> In the context of colleges and universities, the right of publicity is important for any individual employee or student famous enough that there is some ability to profit from appearances and endorse-

Source: U.S. Copyright Office Online Public Catalog<sup>67</sup>

<sup>67.</sup> Public Catalog, U.S. COPYRIGHT OFFICE ONLINE PUBLIC CATALOG, http://cocatalog.loc.gov/cgi-bin/Pwebrecon.cgi?DB=local&PAGE=First. Very broad search conducted using the terms "university" or "college" in the copyright claimant (KCLN) field. It is important to note that this search may be under inclusive in the years closer to 1978 due to database coding issues. Moreover, the search is slightly over inclusive throughout the full time period because the search terms read on some private companies like the College Entrance Examination Board, which publishes the Scholastic Aptitude Test (SAT). A sampling of the results suggests that private companies are a small minority of the records returned by this search.

<sup>68.</sup> U.S. COPYRIGHT OFFICE FISCAL 2012 ANNUAL REPORT 24 (2012), http://www.copyright.gov/reports/annual/2012/ar2012.pdf).

<sup>69.</sup> See Robert T. Thompson III, Image as Personal Property: How Privacy Law Has Influenced the Right of Publicity, 16 UCLA ENT. L. REV. 155, 157–58 (2009).

<sup>70.</sup> Id.

ments. Although it is possible that a famous scientist or economist<sup>71</sup> may need to protect a right of publicity, it is coaches and athletes who have the most valuable rights in this regard.<sup>72</sup>

In general, the right of publicity is a personal right that would not at the outset be owned by a college or university. Only through a contractual license or transfer would the college or university become the administrator of personality property. This may happen as part of a co-branding effort.<sup>73</sup> However, such a transfer may also occur in the context of students who give up their rights to remain eligible for team sports. This is of course not theoretical; the National Collegiate Athletic Association (NCAA) has for years required college and university athletes to relinquish their right to the commercial use of their image.<sup>74</sup>

# II. THE QUEST FOR SOCIAL RESPONSIBILITY IN COLLEGE AND UNIVERSITY IP TRANSACTIONS

The growth of college and university intellectual property ownership means that rights assertion also has a greater societal impact. Moreover, such rights give colleges and universities the power to shape the marketplace in ever more prominent ways. However, because colleges and universities rarely produce products related to the rights they license, they may be disconnected from the impacts and effectively ignore them. It is this latter fact that attracts social activists. Colleges and universities can work to ensure that their use and licensing of intellectual property compels their business partners to act in ways that promote good behavior and social responsibility. In this manner, institutions practice what might be referred to as college or university social responsibility, similar in many ways to corporate social responsibility (CSR).

It is useful to explore particular examples of instances in which colleges and universities have been encouraged to place limitations on the licensing of their property to promote social goals. But one should keep in mind that other contexts certainly exist and more will emerge in the future. College and university technology managers and licensing officers face constant

<sup>71.</sup> As co-author of *Freakonimics*, Steve Levitt is a University of Chicago economist who also enjoys a significant ability to profit from endorsements. *See* Steven D. Levitt, http://pricetheory.uchicago.edu/levitt/home.html (last visited Apr. 16, 2015).

<sup>72.</sup> See Matthew G. Matzkin, *Getting' Played: How the Video Game Industry Violates College Athletes' Rights of Publicity by Not Paying for their Likenesses*, 21 LOY. L.A. ENT. L. REV. 227, 246–49 (2001).

<sup>73.</sup> Steve Berkowitz, *Latest trend for College Football Coaches: Trademarked names*, USA TODAY SPORTS, Nov. 6, 2013, http://www.usatoday.com/story/sports/ncaaf/2013/11/06/college-football-coaches-pay-name-likeness-trademarks/3449829/.

<sup>74.</sup> Julia Brighton, Note, *The NCAA and the Right of Publicity: How the O'Bannon/Keller Case May Finally Level the Playing Field*, 33 HASTINGS COMM. & ENT. L.J. 275, 279–80 (2011).

(and growing) solicitations to put a public service face on intellectual property ownership.

#### A. The Inconsiderate College or University

Although colleges and universities have without a doubt become more important players in the intellectual property game, their interests still constitute only a fraction of overall ownership. Colleges and universities obtained less than 4% of the U.S.-owned utility patents in 2012<sup>75</sup> and less than 0.5% of trademark registrations in 2011.<sup>76</sup> The size belies the important impact of college and university intellectual property that is bolstered by the special incentives they have to get their property into the hands of third parties and the foundational nature of their work. This exaggerated impact is an important reason why social activists believe that college and university policymakers are worth influencing.

First among the factors that enhance college and university intellectual property power is the fact that they generally do not produce products or provide services (other than education and in some circumstances health care and other assorted outreach endeavors). Their intellectual property is a pool of assets ready for third-party purchase and utilization.<sup>77</sup> Moreover, the failure to put the intellectual property into use can result in substantial losses. The average patent costs thousands of dollars in filing fees, attorney time and administrative time.<sup>78</sup> Even the initial stage of filing a provisional patent application is expensive. Federal trademark registration applications are significantly less costly, but the amount of money is substantial.<sup>79</sup> And, while it is true that copyrights receive protection as soon as they are fixed in a tangible medium<sup>80</sup> and registration costs can be deferred until transfer or litigation, the production of copyrightable works reflects some investment in the original creative act. This is funded through college or university salaries and materials. Once costs are sunk, the failure

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<sup>75.</sup> University Report Table of Contents, U.S. Colleges and Universities Patent Grants 1969-2012 (last visited Apr. 16, 2015) http://www.uspto.gov/web/offices/ac/ido/oeip/taf/univ/asgn/table\_1\_2012.htm.

<sup>76.</sup> Rooksby, *supra* note 41, at 390; U.S. PAT. & TRADEMARK OFF., PERFORMANCE AND ACCOUNTABILITY REPORT FISCAL YEAR 2011 (2012), *available at* http://www.uspto.gov/about/stratplan/ar/2011/.

<sup>77.</sup> See Engber, supra note 5.

<sup>78.</sup> *See* David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677, 698–90 (2012) (estimating the average cost to obtain a patent to be approximately \$22,000).

<sup>79.</sup> Karen E. Klein, *When is the Right Time to Trademark Your Company's Name?*, BUS. WK., July 5, 2013, http://www.businessweek.com/articles/2013-07-05/when-is-the-right-time-to-trademark-your-companys-name (addressing trademark registration costs and profiling a firm that is "middle of the road" in price at around \$2000 per classification).

<sup>80. 17</sup> U.S.C. § 102 (2012).

to sell or license can mean a loss of monetary investment. Maintenance fees add to the burden. The longer that a college or university holds onto unlicensed patents and trademarks, the more it will cost in terms of maintenance fees and other administrative burdens.<sup>81</sup> Therefore, colleges and universities have a strong incentive to move rights off their books and attempt to at least recoup the acquisition costs.

Second, because colleges and universities generally do not face litigation in return for their intellectual property distribution (and public colleges and universities have an even stronger Eleventh Amendment protection against federal suits),<sup>82</sup> there is no economic incentive to be judicious in enforcing or licensing the rights. Consider in contrast the disincentives that exist for a typical firm: (1) there is the possibility that an assignee or licensee will use a firm's own right to harm the firm's position in the marketplace, and (2) it is possible that a non-licensee competitor will use its rights to sue in return (or license to another who will sue). In the marketplace, there is utility in equilibrium. No such disincentives exist for colleges and universities, though, because they are not generally producers or infringers.<sup>83</sup> There is no economic reason for a college or university to hold back in its licensing practices for fear of a competitor's counterattack. From the position of the institution's stakeholders, it makes sense to always sell to the highest bidder (or any bidder).

And third, because college and university rights often cover basic research, they may have foundational power over an industry. Many college and university patents are related to nascent technologies.<sup>84</sup> They may be the building blocks for some future firm or even industry segment. Foundational patents can be particularly powerful if appropriately drafted. It may be possible to impact a large part of a developing industry unaware of the scope of protection over such basic technology. The blockbuster college and university success stories are often related to these kinds of broad rights.

Compounding the unique market position of colleges and universities is the fact that institutional managers find the intellectual property revenue stream delicate and resist top-down legislation that would impose curtailing restrictions. This is particularly true in the context of patents. For example, in the most recent patent reform legislation, the *America Invents Act*, col-

<sup>81.</sup> Kimberly A. Moore, Worthless Patents, 20 BERKELEY TECH. L.J. 1521, 1521–26 (2005).

<sup>82.</sup> Mark. A. Lemley, Are Universities Patent Trolls?, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 615–16 (2008).

<sup>83.</sup> It is true that colleges and universities may infringe patents on research tools, but not with the same risk of reflexive litigation that an operating firm faces.

<sup>84.</sup> See Arti K. Rai & Rebecca S. Eisenberg, *Bayh-Dole Reform and the Progress of Biomedicine*, 66 LAW & CONTEMP. PROBS. 289, 291 (2003) (describing university patenting of basic research technology).

leges and universities were given a special exemption from the provision that grants prior user rights for undisclosed pre-filing uses of the invention.<sup>85</sup> This protection was enacted entirely as a benefit to colleges and universities. A more recent example involves non-practicing patent entities or patent trolls and the failure of bipartisan legislation due in part to college and university pressure.<sup>86</sup>

As a result of the unique incentives for colleges and universities, social responsibility advocates have focused on convincing individual college and university actors to take independent action. In essence, socially responsible licensing is now a critical part of some college and university programs. It is generally a response to specific issues, and a one-sided restriction without significant reflection on the affect of the revenue losses.

# B. Recent Socially-Responsible College and University Licensing Efforts

There have been calls for socially responsible behavior with regard to college and university intellectual capital dating back at least to the early resistance to patenting academic research. But the formation of an actual resistance movement required sufficient forward momentum by colleges and universities. It is only after colleges and universities emerged as important intellectual property owners that activists found a great need for explicit confrontation. Clear examples exist in the patent, trademark, and copyright field, suggesting a pan-intellectual property phenomenon that is subject to a more general plan for redress.

# 1. Trolls Besiege the Ivory Tower

Due largely to the incentive to put college or university patents into the hands of any third parties, no matter what their motivations, industry had raised concerns about the potential for colleges and universities to fuel patent trolls. The special relationship that colleges and universities have with these classes of disfavored actors is an important factor that precludes easy solutions.

Patent trolls are entities that own patents and produce no products. In popular culture, they have been portrayed as opportunistic actors with no other real business purpose than to sue legitimate businesses.<sup>87</sup> Receiving particular ire are trolling firms that engage in no invention but merely purchase patents from another. Set up with nothing but a mailing address in a

<sup>85. 35</sup> U.S.C. § 273(e)(5) (2006).

<sup>86.</sup> See infra notes 167-181, and accompanying text.

<sup>87.</sup> See, e.g., David Segal, Has Patent, Will Sue: An Alert to Corporate America, N.Y. TIMES, July 13, 2013, http://www.nytimes.com/2013/07/14/business/has-patent-will-sue-an-alert-to-corporate-america.html?\_r=0 (profile of Erich Spangenberg, owner of patent assertion entity, IPNav).

supposedly favorable forum like the Eastern District of Texas,<sup>88</sup> the apocryphal troll charges a toll on a bridge they did not build simply because the law allows them to. In some cases, trolls go after weak and unknowledgeable defendants who are end users of someone else's allegedly infringing technology.<sup>89</sup> Not all trolls fit the foregoing archetype, but the image is powerful enough to inspire presidential condemnation<sup>90</sup> and legislative action.<sup>91</sup>

On deeper investigation, the troll problem is more complicated than it would initially appear, and this can be observed in the debate about appropriate categorization and terminology. The first non-disparaging name applied to trolling firms was "non-practicing entity" (NPE). Although this captures the worst of the trolls, it also included other innocent actors like colleges and universities, innovation labs or failed startups. A subsequent, neutral term used by many is "Patent Assertion Entity" (PAE),<sup>92</sup> coined to reflect the litigation purpose of trolls. Less commonly used, but of the same ilk is Patent Monetization Entity (PME). All of these terms are an attempt to highlight perceived bad behavior.

Even the impact of trolling is debatable.<sup>93</sup> Initial reports focused on the dramatic increase in litigation in recent years showed that a large percent of that increase was comprised of troll lawsuits.<sup>94</sup> However, critiques of this

<sup>88.</sup> David O. Taylor, Patent Misjoinder, 88 N.Y.U. L. REV. 652, 660 (2013).

<sup>89.</sup> See Timothy B. Lee, *There are two patent troll problems. The House bill only fixes one of them*, WASH. POST, Dec. 4, 2013, http://www.washingtonpost.com/blogs/ the-switch/wp/2013/12/04/there-are-two-patent-troll-problems-the-house-bill-only-fixes-one-of-them/ (interview with U.S. Representative Bob Goodlatte in which he describes the problem of trolls suing unsophisticated end-users).

<sup>90.</sup> See PATENT ASSERTION AND U.S. INNOVATION, EXEC. OFFICE OF THE PRESI-DENT 2 (June 2013) [hereinafter WHITE HOUSE REPORT], available at https://www.whitehouse.gov/sites/default/files/docs/patent\_report.pdf (discussing impact of patent assertion entities on U.S. economy); David Kravets, *History Will Remember Obama as the Great Slayer of Patent Trolls*, WIRED (Mar. 20, 2014), http://www.wired.com/2014/03/obama-legacy-patent-trolls/ (reviewing the five executive orders aimed at reducing patent inefficiencies including trolls).

<sup>91.</sup> See Patent Progress's Guide to Federal Patent Reform Legislation, PATENT PROGRESS, http://www.patentprogress.org/patent-progresss-guide-patent-reform-legislation/ (last visited Apr. 14, 2015) (listing fourteen different bills drafted to address the patent troll problem).

<sup>92.</sup> Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, Unpacking Patent Assertion Entities (PAEs), 99 MINN. L. REV. 649, 650 (2014).

<sup>93.</sup> See Stephen Haber & Ross Levine, *The Myth of the Wicked Patent Troll*, WALL ST. J., June 29, 2014, http://online.wsj.com/articles/stephen-haber-and-ross-levine-the-myth-of-the-wicked-patent-troll-1404085391 (arguing that the increase in patent litigation by non-practicing entities does not necessarily indicate a negative impact on innovation).

<sup>94.</sup> See, e.g., Colleen Chien, *Patent Trolls by the Numbers*, PATENTLY-O (Mar. 14, 2013), http://patentlyo.com/patent/2013/03/chien-patent-trolls.html (stating that patent assertion entities brought 62% of all patent litigations in 2012).

work eventually emerged that pointed out that the increase in litigation was partially due to new joinder rules that limit cases in which multiple defendants can be sued in a single action.<sup>95</sup> In addition, it has been suggested that the worst-of-the-worst type of troll—the firm that exists only to extract unearned licensing fees from the weak—is actually responsible for a relatively small percentage of annual cases.<sup>96</sup>

Regardless of definitional debates, few would argue that a firm possessing a weak (e.g., likely invalid) patent, suing mom and pop establishments for using a commercial system possessing a minor, patented component and offering to settle for a nuisance fee is a positive economic force.<sup>97</sup> Businesses large and small have no love for such behavior. And there is a sense that its impact may grow and affect other industries.<sup>98</sup>

Taken together, college and university patent portfolios are particularly attractive targets for trolls, and that concerns both policymakers and industry. College and university rights that would otherwise sit fallow may be valuable at least as a threat value to trolls. The point at which trolling value and college or university return on investment meet is fairly low. Reportedly, some colleges and universities have already fallen into the troll trap and inadvertently (or inconsiderately) fueled bad behavior.<sup>99</sup>

The potential for colleges and universities to mix with trolls has led some to call for anti-troll licensing policies. Most prominently, the Association of American Universities (AAU) has explicitly advocated an anti patent troll position for its membership. In a 2007 document memorializing points of agreement from a small but representative meeting of prominent college and university tech transfer individuals, the AAU advises members to "Be mindful of the Implications of working with patent aggregators."<sup>100</sup> The document includes the normative observation:

Without delving more deeply into the very real issues of patent misuse and bad-faith dealing by such aggregators, suffice it to say that universities would better serve the public interest by ensuring appropriate use of their technology by requiring their li-

<sup>95.</sup> See generally Cotropia, et al., supra note 92.

<sup>96.</sup> Id. at 666; Cf. James Bessen, ALL the Facts: PAEs are Suing Many More Companies, PATENTLY-O (Jan. 28, 2014), http://patentlyo.com/patent/2014/01/facts-suing-companies.html (responding to Cotropia, et al.).

<sup>97.</sup> See James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 422–23 (2014) (reporting on survey of costs of NPE litigation and concluding that it is a significant social problem due to the net economic losses).

<sup>98.</sup> Erika C. Hayden, '*Patent trolls' target biotechnology firms*, 477 NATURE 521 (2011).

<sup>99.</sup> Engber, *supra* note 5.

<sup>100.</sup> In the Public Interest: Nine Points to Consider in Licensing University Technology, ASS'N OF AM. UNIV., (2007), available at http://www.aau.edu/workarea/downloadasset.aspx?id=2642.

censees to operate under a business model that encourages commercialization and does not rely primarily on threats of infringement litigation to generate revenue.<sup>101</sup>

Thus, there is an established sentiment that colleges and universities have a special responsibility to avoid patent trolls and there is also accompanying pressure to address that responsibility.

#### 2. Licensing to Promote Access to Essential Medicines

Pharmaceutical companies are well accustomed to concerns that their patent rights create barriers for access to essential medicines. As a market exclusion device, patents can drive up the costs of goods that have no simple substitute.<sup>102</sup> In the context of medicines that may provide the best treatment for a particular disease, patents can convey great power and demand a significant price premium.<sup>103</sup> In wealthy countries, such prices may be absorbed by the health care system, but in developing and least developed countries adequate funds may not be available. Firms have many options to facilitate greater access, from utilizing price discrimination to providing low-cost branded goods to developing nations to authorizing third parties to produce generics.<sup>104</sup> The extent to which a firm chooses an access option depends on a variety of factors that include the nature of the global market, the severity of the disease, and the extent to which research and development can be accounted for in developed nations. Activists constantly try to push firms toward greater access.<sup>105</sup>

Colleges and universities may be confronted with many of the same issues as pharmaceutical companies.<sup>106</sup> When college and university scientists develop chemical and biologic compounds that are central to essential medicines, they will likely license such inventions to a firm that will com-

<sup>101.</sup> *Id.* at 8.

<sup>102.</sup> An excellent review of the literature underlying this proposition, followed by a critique, is provided by Benjamin N. Roin, *Intellectual Property versus Prizes: Reframing the Debate*, 81 U. CHI. L. REV. 999 (2014).

<sup>103.</sup> See, e.g., Daniel R. Cahoy, Confronting Myths and Myopia on the Road from Doha, 42 GA. L. REV. 131, 140–41 (2007).

<sup>104.</sup> Kevin Outterson, *Pharmaceutical Arbitrage: Balancing Access and Innovation in International Prescription Drug Markets*, 5 YALE J. HEALTH POL'Y, L. & ETH-ICS 193, 203–05 (2005) (describing the effects of price discrimination — or arbitrage — for patented goods).

<sup>105.</sup> See Joseph E. Stiglitz, Dean Baker & Arjun Jayadev, Obama Versus Obamacare, PROJECT SYNDICATE (Feb. 10, 2015), http://www.project-syndicate.org/commentary/obamacare-india-generic-drugs-by-dean-baker-et-al-2015-02 (arguing that aggressive patent protection reduces access in developing countries).

<sup>106.</sup> See, e.g., Ellen F.M. 't Hoen, The Responsibility of Research Universities to Promote Access to Essential Medicines, 3 YALE J. HEALTH POL'Y, L. & ETHICS 293, 297–99 (2003) (arguing that colleges and universities have a public responsibility to address access to medicines in patenting and licensing decisions).

mercialize. Traditionally, little thought has been given to the firm's commercialization plans beyond guarantees that some use will occur that will produce an income stream. But activists argue that the licensing transaction is a key opportunity to put some controls on intellectual property use that provide greater access.<sup>107</sup>

Recent years have seen the growth of a movement to compel colleges and universities to require access in out-licensing transactions. One of the most prominent of these groups is Universities Allied for Essential Medicines (UAEM), which lists chapters at the most prominent medical research colleges and universities in the country, such as Harvard, Yale, Penn, and Stanford.<sup>108</sup> The goal is to encourage the limitation of licenses so that humanitarian uses are preserved through mechanisms such as non-assertion agreements and reservation of rights agreements.<sup>109</sup> Overall, such restrictions may make the use of the intellectual property less attractive or less valuable. But the social goal is deemed paramount.

#### 3. Branded Merchandise and Fair Labor Standards

Outrage over the deplorable working conditions in which clothing is produced in developing countries has fostered a growing sensitivity to supply chain ethics. Companies have been cited for using suppliers that rely on child labor, require unreasonable shifts, or permit dangerous working conditions.<sup>110</sup> The branded company logo on the side of the factory with mistreated workers is a metaphorical black eye.

Colleges and universities may be on the hook as well. Although colleges and universities rarely directly contract to produce clothing, they often license outside vendors who then depend on developing country supplies for materials and manufacture. In the same way that a major company may find its logo on a t-shirt produced through child labor, so may a university or college.

This reality has led to a movement to set forth fair labor standards in college and university trademark licensing. Students initially led the way.<sup>111</sup>

ied at companies like Nike and Gap).

111. Purnima Bose, From Agitation to Institutionalization: The Student Anti-Sweatshop Movement in the New Millennium, 15 IND. J. GLOBAL LEGAL STUD. 213

<sup>107.</sup> See generally Krista L. Cox, The Medicines Patent Pool: Promoting Access and Innovation for Life-Saving Medicines Through Voluntary Licenses, 4 HASTINGS SCI. & TECH. L.J. 291 (2012).

<sup>108.</sup> Chapters, UAEM, http://uaem.org/chapters/ (last visited Apr. 14, 2015).

<sup>109.</sup> Beirne Roose-Snyer & Megan K. Doyle, *The Global Health Licensing Program: A New Model for Humanitarian Licensing at the University Level*, 35 AM. J. L. & MED. 281, 285–86, 288–89 (2009).

<sup>110.</sup> See David Barboza, In Chinese Factories, Lost Fingers and Low Pay, N.Y. TIMES, Jan.5, 2008, http://www.nytimes.com/2008/01/05/business/worldbusiness/05 sweatshop.html?pagewanted=1& (describing accusations of unfair labor practices lev-

Groups like United Students Against Sweatshops (USAS)<sup>112</sup> now work to influence college and university apparel manufacturing decisions. A slight hurdle has been the large consortium that typically license college and university trademarks. An attempt by several colleges and universities to work together to set standards could be considered an antitrust issue.<sup>113</sup> However, the college or university acting alone would be able to incorporate standards. And the licensing associations themselves can create basic standards that avoid the whiff of collusion.

#### 4. Mandated Open Access

The spiraling cost of academic journals and educational materials can create access issues.<sup>114</sup> For some time, the sciences have been under scrutiny for copyright restrictions—pay walls, proprietary databases, etc.— impacting journals that cover issues related to medicine.<sup>115</sup> According to many, the restrictions mean that cutting edge work that can be the foundation for future advancement is not accessible by researchers and institutions with less funding.<sup>116</sup> Colleges and universities have a particularly acute perception of access issues through stretched library funding<sup>117</sup> and the yearly student complaints about the high cost of educational works, like textbooks.<sup>118</sup>

The federal government has responded with some plans for requiring articles based on federally funded research to be accessible by the public. The strongest current policy is the National Institutes of Health's (NIH) Public Access Policy.<sup>119</sup> It requires peer-reviewed manuscripts accepted

<sup>(2008).</sup> 

<sup>112.</sup> About, USAS, http://usas.org/about/ (last visited, Apr. 16, 2015).

<sup>113.</sup> Bose, *supra* note 111, at 238.

<sup>114.</sup> Jorge L. Contreras, *Confronting the Crisis in Scientific Publishing: Latency, Licensing, and Access*, 53 SANTA CLARA L. REV. 491, 505–08 (2013).

<sup>115.</sup> Thomas Lin, *Cracking Open the Scientific Process*, N.Y. TIMES, Jan. 16, 2012, http://www.nytimes.com/2012/01/17/science/open-science-challenges-journal-tradition-with-web-collaboration.html?\_r=0.

<sup>116.</sup> See Kristopher Nelson, The Impact of Government-Mandated Public Access to Biomedical Research: An Analysis of the New NIH Depository Requirements, 19 ALB. L.J. SCI. & TECH. 421, 429–31 (2009) (describing the rising cost barriers for academic publications).

<sup>117.</sup> Julie Nicklin, *Libraries Drop Thousands of Journals as Budgets Shrink and Prices Rise*, CHRON. OF HIGHER ED., Dec. 11, 1991, at A29.

<sup>118.</sup> Allie Bidwell, *Report: High Textbook Prices Have College Students Struggling*, U.S. NEWS, Jan. 28, 2014, http://www.usnews.com/news/articles/2014/01/28/ report-high-textbook-prices-have-college-students-struggling.

<sup>119.</sup> NIH Public Access Policy Details, NAT'L INST. OF HEALTH, http://publicaccess.nih.gov/policy.htm (last updated, Mar. 27, 2014). See also Paul Basken, NIH to Begin Enforcing Open-Access Policy on Research It Supports, CHRON. OF HIGHER ED., Nov. 19, 2012, http://chronicle.com/article/NIH-to-Begin-Enforcing/135852/ (describing enforcement of the NIH Policy).

after April 2008 and arising from any direct NIH funding to be "publicly available."<sup>120</sup> The White House Office of Science and Technology Policy (OSTP) announced a much broader open access policy in 2013.<sup>121</sup> It requires all federal agencies with \$100 million or more in "research and development expenditures to develop a plan to support increased public access to the results of [government funded research]."<sup>122</sup> To date, the effort is still in the planning stage, but it should eventually have a more significant impact. Still, this top down approach covers only a small part of the content that college and university employees produce, with very little coverage for many social sciences and the humanities.

What should be done with those copyrighted works not covered by federal mandates? Many colleges and universities have taken it upon themselves to enact open access policies for faculty and staff.<sup>123</sup> Such policies may simply envision an archive site that provides an alternative or complement to journal publishing (often referred to as the "green road"). But the more onerous strongly favor (arguably require) open access publishing and suggest the use of open access journals.<sup>124</sup> For example, Harvard University's Faculty of Arts and Sciences (FAS) adopted a permission mandate in 2008 that requires faculty members to grant to the University a "nonexclusive, irrevocable, paid-up, worldwide license to exercise any and all rights under copyright,"<sup>125</sup> essentially revising the standard model of faculty full ownership of academic works. Although there is an exception for explained need for restriction, the policy imposes on faculty the obligation to either publish in open access journals or attempt negotiation with proprietary publications for greater rights.<sup>126</sup>

When colleges and universities adopt open access policies, they are making a decision to favor a general public policy to the detriment of their own stakeholders. In some cases, these policies may push faculty to less attractive outlets, impacting scholarly reputation and advancement. Alternatively, they may impact college or university resources. In response to the call for more access, many journals now provide a parallel publication path that, for a hefty fee as high as \$10,000, removes access limitation for a

<sup>120.</sup> NAT'L INST. OF HEALTH, *supra* note 119.

<sup>121.</sup> Memorandum from John P. Holdren for the Heads of the Executive Departments and Agencies: Increasing Access to the Results of Federally Funded Scientific Research (Feb. 22, 2013), *available at* https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp\_public\_access\_memo\_2013.pdf.

<sup>122.</sup> Id. at 2.

<sup>123.</sup> *See* Contreras, *supra* note 114, at 526–28 (describing self-archiving and noting that groups such as the Association of College and Research Libraries (ACRL) and the Scholarly Publishing and Academic Resources Coalition (SPARC)).

<sup>124.</sup> Priest, *supra* note 58, at 385–400.

<sup>125.</sup> Harvard Faculty of Arts and Sciences *Open Access* Policy, HARV. U. LIBR. OFF. FOR SCHOLARLY COMM. (Feb. 12, 2008), https://osc.hul.harvard.edu/hfaspolicy.

<sup>126.</sup> *Id*.

particular article.<sup>127</sup> In a sense, the school buys out the copyright limitation. That funding, of course, must come from other college or university uses with attendant stakeholder impacts.

Notably, open access policies are directed towards the faculty and staff of the institution. However, they may not impact the rights of outside authors who publish in school-owned journals and other publication. Thus, one could argue that colleges and universities are more likely to set a social policy agenda that sacrifices their own employees' rights when it is acknowledged that such a policy is unreasonable for others.<sup>128</sup>

# 5. Profiting from Student Labor

One of the greatest controversies in college sports is the treatment of student athletes. In high profile sports, like football and basketball, students have the capacity to make great sums of money from their participation as well as their product endorsements.<sup>129</sup> However, the NCAA prohibits student athletes from receiving any compensation for the use of the names, images, and likenesses in broadcasts, videogames and other depictions.<sup>130</sup> As members of the NCAA, colleges and universities embrace and embody these rules.

The inequity of this rights restriction was highlighted in the recent case of *O'Bannon v. National Collegiate Athletic Association*.<sup>131</sup> In that case, a former UCLA basketball player and other similarly-situated plaintiffs sued the NCAA for unlawfully restraining their ability to profit from the sale of their personalities to video game companies (in particular, Electronic Arts). According to the plaintiffs, the NCAA requirement against compensation and related transfer of rights constituted an anti-competitive agreement among member institutions. The court agreed that the compensation restriction was a form of illegal price fixing, but did not find an injury to competition for the group licensing of players images.<sup>132</sup> In the end, the case represented an important victory for student athletes and demonstrated the significant value of the images of individual college and university ac-

<sup>127.</sup> *See* Contreras, *supra* note 114, at 528–31 (referring to what some term the "gold route" of journal publication).

<sup>128.</sup> See Raizel Liebler, Copyright Hall of Janus?: Harvard University's Two-Faced Approach to Copyright, THE LEARNED FANGIRL (Aug. 31, 2009), http://thelearnedfangirl.com/2009/08/31/copyright-hall-of-janus-harvard-universitystwo-faced-approach-to-copyright/ (contrasting Harvard's policy for its faculty with the Harvard Business Review's policy for its own content).

<sup>129.</sup> Marc Edelman, 21 Reasons Why Student-Athletes Are Employees And Should Be Allowed To Unionize, FORBES (Jan. 30, 2014), http://www.forbes.com/sites/marcedelman/2014/01/30/21-reasons-why-student-athletes-are-employees-and-should-be-allowed-to-unionize/.

<sup>130.</sup> See Brighton, supra note 74, at 279–80.

<sup>131. 7</sup> F. Supp. 3d 955 (N.D. Cal. 2014).

<sup>132.</sup> Id. at 988, 996–97, 998.

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In essence, by continuing to limit the student income from endorsements (with the collaboration and oversight of the NCAA), colleges and universities are engaging in restrictive licensing. The fact that such licensing arguably serves an academic purpose could qualify it as a form of social policy limitation. And as with the other types of intellectual property licenses described above, the impact on the employee (the student athlete) is not a consideration.

# III. THE OTHER SIDE OF THE COIN: STAKEHOLDERS IN COLLEGE AND UNIVERSITY IP

Few would assert that colleges and universities act unreasonably in considering the social impact of their commercial activities. But it is also reasonable for colleges and universities to consider the positive impacts on third parties who benefit from the income. Are they required to balance these considerations? In other words, do colleges and universities owe any special duty to stakeholders?

To the extent that colleges and universities have become more commercial,<sup>133</sup> one could argue their stakeholder obligations are similar to private firms. Few would argue that corporations have an obligation to return profits to anyone but the shareholders. And given the absence of college and university shareholders (at least in non-profit colleges and universities), one could argue that stakeholder obligations are reduced even more as compared to a firm.

However, such a view ignores fundamental advantages given to colleges and universities that demand a more substantive accounting. Most important are various forms of indirect funding, which include student grant programs, tax relief and student loans. Direct funding also plays a smaller, but important role, particularly at state colleges and universities.

Additionally, colleges and universities can be said to have fiduciary-like obligations. There are many types of beneficiaries with different capacities who reap different types of rewards. For the sake of evaluating the impact of patent licensing or alienation policy, it is easiest to consider beneficiaries in terms of those who receive direct economic benefits and those whose benefits are received more downstream. The latter may include both economic benefits and broader social benefits, with the social side being a bit more ambiguous.

#### A. Obligations to Funders

The public service role of a college or university is complemented by the

<sup>133.</sup> *See generally* DEREK BOK, UNIVERSITIES IN THE MARKETPLACE: THE COM-MERCIALIZATION OF HIGHER EDUCATION (2003).

expectation of public support at some level.<sup>134</sup> Whether through direct funding or indirect support, U.S. colleges and universities rely on a societal understanding that they have some of the characteristics of a public good. This strong connection to public resources also creates an expectation that they will be caretakers of the property they have and create. In the context of intellectual property, one can argue that public support requires that colleges and universities treat the fruits of their creativity and innovation as a trust for stakeholders. At least, it is a reasonable motivation for fully utilizing this property supported by the public.

# 1. Direct Funders

The American public college or university is an institution critical to modern higher education. The first public colleges and universities date back to the founding of the country.<sup>135</sup> With the subsequent expansions spurred by the Morrill Acts and the post-WWII increase in funding, public colleges and universities became a prominent fixture and source of academic output.<sup>136</sup> Public funding, largely through state governments, was essential to the size and character of public schools. Accompanying the funding, state governments retain some direct control over the governance of the institutions, through delegation, which is obviously essential due to the expansive nature of many such schools. But as a collection of state or state-related employees, even remote administrators understand an obligation to care for state assets that include intellectual property.

More recently, the role of the state in direct public funding of colleges and universities has come into question. According to a recent report in the *Chronicle of Higher Education*, we are nearly at a tipping point past which students will actually provide a greater amount of funding than the states.<sup>137</sup> At many schools, state support has fallen from around 50%-60% in the mid-1980s to under 20% in 2012.<sup>138</sup> Regardless, even at 10%, the citizens of a state have an interest in what happens to the property they partially support.

<sup>134.</sup> *See* DEREK BOK, BEYOND THE IVORY TOWER 61–66 (1982) (noting the relationship between public support and the public service mission of the college or university).

<sup>135.</sup> Chartered in 1789 and opened in 1795, the University of North Carolina claims to be the country's first public university. About UNC, UNIV. N.C. AT CHAPEL HILL, http://unc.edu/about/ (last visited Apr. 14, 2015).

<sup>136.</sup> See supra notes 14–18, and accompanying text.

<sup>137.</sup> Sara Hebel, *From Public Good to Private Good*, CHRON. OF HIGHER ED., Mar. 3, 2014, http://chronicle.com/article/From-Public-Good-to-Private/145061.

<sup>138. 25</sup> Years of Declining State Support for Public Colleges, CHRON. OF HIGHER ED., Mar. 3, 2014, http://chronicle.com/article/25-Years-of-Declining-State/144973/.

#### 2. Indirect Funders

All non-profit colleges and universities—public and private—also receive a great deal of indirect support in the form of tax exemptions and various types of tuition support for students. As section 501(c)(3) intuitions under the federal tax code, colleges and universities are exempt from federal income tax.<sup>139</sup> They are also often exempt from state property taxes, though many institutions make some payment in lieu of taxes to help account for their use of local services.<sup>140</sup> A multitude of federal grants, such as Pell Grants and low-cost student loans, funnel tuition into colleges and universities.

As with direct funding, the public stands behind these indirect methods of support and has a reasonable expectation of competent administration of college and university resources. The level of accountability is not perhaps as great as with direct state control, but it seems fair to count taxpayers as at least a remote stakeholder in college and university intellectual property licensing and enforcement decisions.

#### **B.** Direct Economic Beneficiaries

Given the unique structure of research colleges and universities and the way profits from intellectual property licenses are distributed, direct economic beneficiaries include groups beyond the nonprofit institution itself.<sup>141</sup> At a minimum, the faculty inventors on a patent must be included. Students and taxpayers (particularly in the case of public colleges and universities) also stand to benefit from many types of intellectual property revenue.

#### 1. Filling the College and University Coffers (or Not)

Whatever notions may have once existed about college or university technology capture and transfer having a public benefit goal, it seems clear that many, if not most, colleges and universities pursue patents out of a desire to obtain extra income to shore up dwindling state investment and donor funding. To many college and university administrators, faculty and staff members are untapped income sources,<sup>142</sup> and obtaining a patent is like purchasing a lottery ticket that may turn on the financial spigots. This

<sup>139.</sup> See Peter D. Blumberg, Comment, From "Publish or Perish" to "Profit or Perish": Revenues from University Technology Transfer and the § 501(c)(3) Tax Exemption, 145 U. PA. L. REV. 89, 101–104 (1996).

<sup>140.</sup> Gerald Rokoff, Alternative to the University Property Tax Exemption, 83 YALE L.J. 181, 183–88 (1973).

<sup>141.</sup> See Lisa Vertinsky, Universities as Guardians of Their Inventions, 2012 UTAH L. REV. 1949, 1988–89 (2012)

<sup>142.</sup> See Lee, supra note 7, at 36–38 (describing the general shift in university administrative and faculty attitudes toward patenting in recent years).

is particularly so if the patentable research is a natural consequence of the college's and university's research and development. No additional research support is required to produce a patent portfolio, and it is money left on the table if not captured through intellectual property rights.

Some might consider a college's or university's economic desires to be unattractive and contrary to the academic mission. Colleges and universities have often been criticized for acting too much like businesses.<sup>143</sup> But one must concede that there are some benefits. Revenue flowing into the institution from one source means more money is released for other uses.<sup>144</sup> The Bayh-Dole Act enabling rules require that royalties retained by the nonprofit be "utilized for the support of scientific research or education,"<sup>145</sup> but that leaves open many possibilities. Theoretically, tuition increases could be blunted, building funds could be supplemented and high level faculty and staff could be attracted. Because the nonprofit college and university has so many public benefits by nature of its daily operations, it is easy to see how patent income is a net positive, all things being equal. Similar is the justification for sports revenue. Although one might believe colleges and universities should not be involved in any business-like activities, the income has the potential to make the institution stronger, which should have positive spillover effects.

Given the positive impact of additional revenue generation, one would expect a literature replete with stores of blockbuster licensing deals and tech transfer offices that have become college and university cash cows. To be sure, there is real money involved, with colleges and universities engaging in more than 5,000 patent licenses and netting about \$2.6 billion in 2012 according to a survey by the Association of University Technology Managers (AUTM).<sup>146</sup> And indeed, there are some prominent success stories. Columbia University's patents related to inserting foreign DNA into cells have reportedly provided \$790 million in revenue.<sup>147</sup> Northwestern University has earned hundreds of millions of dollars from its patents li-

<sup>143.</sup> See William W. Keep, *The Worrisome Ascendance of Business in Higher Education*, CHRON. OF HIGHER ED., June 21, 2012, http://chronicle.com/article/The-Worrisome-Ascendance-of/132501/ (using the dismissal of University of Virginia President Teresa Sullivan as evidence of a trend toward business management of college and university resources).

<sup>144.</sup> *See* Lemann, *supra* note 14 (describing the difficulty colleges and universities have in simply cutting costs).

<sup>145. 37</sup> C.F.R. § 401.14(k)(3) (2013).

<sup>146.</sup> *ATUM Licensing Activity Survey: FY 2012*, ASS'N OF UNIV. TECH. MANAGERS 12, 14, *available at* https://www.autm.net/FY2012\_Licensing\_Activity\_Survey/14318 .htm [hereinafter AUTM SURVEY].

<sup>147.</sup> Richard Pérez-Peña, *Patenting Their Discoveries Does Not Pay Off for Most Universities, a Study Says*, N.Y. TIMES, Nov. 20, 2013, http://www.nytimes.com/2013/11/21/education/patenting-their-discoveries-does-not-pay-off-for-most-universities-a-study-says.html?\_r=0.

censed to Pfizer to produce Lyrica.<sup>148</sup> There are others, but in the final tally, they are few and far between. Overall, most colleges and universities operate their tech transfer offices in the red. According to a 2013 report sponsored by the Brookings Institute, approximately 84% of college and university tech transfer offices spend more money on staff and legal costs than they receive in patent licensing revenue.<sup>149</sup> Moreover, there is evidence that in some fields, the potential to apply for patents may reduce the quality and quantity of research conducted.<sup>150</sup> For the 16% of tech transfer offices that do make money (and the others that hope to soon), patent licensing is a real economic benefit that supports employees and facilities.

#### 2. Rewarding Inventors

An important part of the Bayh-Dole Act is its requirement that nonprofit contractors like colleges and universities "share royalties with the inventor."<sup>151</sup> Many colleges and universities would undoubtedly share royalties without this legal requirement, but the influence of federal funding means that royalty sharing is solidly the norm. College and university inventors, whether they are faculty members, research staff or graduate students, have a stake in the profits from patent licenses.

The Bayh-Dole Act does not specify the royalty percentage that colleges and universities must pay to inventors. Policies can differ significantly, but many employ a fixed percentage of profits in the range of 25% to 33.3%.<sup>152</sup> The specific amount can be higher or based on other metrics. For example, the Penn State royalty sharing policy allocates 40% of revenue after expenses to the inventor and 20% to the administrative unit of the inventor's college.<sup>153</sup> Importantly, such royalty sharing agreements refer to costs associated with the licensed invention. Thus, it is quite possible that a college or university's tech transfer office is a money loser, but an inventor would stand to retain substantial profits from her specific invention.

<sup>148.</sup> Vicki Loise & Ashley J. Stevens, *The Bayh-Dole Act Turns 30*, LES NOUVELLES, 188 (Dec. 2010), *available at* http://www.bu.edu/otd/files/2011/02/The\_Bayh-Dole\_Act\_Turns\_30.pdf.

<sup>149.</sup> Walter D. Valdivia, *University Start-Ups: Critical for Improving Technology Transfer*, BROOKINGS (Nov. 20, 2013), http://www.brookings.edu/research/papers/2013 /11/university-start-ups-technology-transfer-valdivia.

<sup>150.</sup> See Brian J. Love, Do University Patents Pay Off? Evidence from a Survey of University Inventors in Computer Science and Electrical Engineering, 16 YALE J. L. & TECH. 285 (2014) (survey of 269 university inventors in the field of computer engineering and computer science).

<sup>151. 35</sup> U.S.C. § 202(c)(7)(B) (2006).

<sup>152.</sup> Alan S. Gutterman, 19 BUSINESS TRANSACTIONS SOLUTIONS 87:24 (West update 2014).

<sup>153.</sup> What Happens After Submission of the Invention Disclosure?, OFFICE OF THE VICE PRESIDENT FOR RESEARCH AT PENN STATE, http://www.research.psu.edu/patents/ protect-your-invention/what-happens-after-submission (last visited Apr. 15, 2015).

With the above percentage in mind, it is clear that inventor royalties are quite high compared to industry norms. Forgoing this revenue by allowing the patent to lapse without licensing could mean a substantial loss of income for the inventor(s). And with control of the patent firmly in the hands of the college or university, inventors have no other option for licensing the invention.

# 3. Lowering Costs for Other College and University Contributors

Beyond those who receive payments from a college or university, licensing income can be reasonably seen to benefit those on the other side of the equation. If one makes payments to a college or university in order to fund its daily operations, new licensing revenue could theoretically reduce costs and help cut the contribution necessary.<sup>154</sup> Under this view, individuals such as students and taxpayers could be regarded as direct beneficiaries.

An excellent case in point is the Wisconsin Alumni Research Foundation (WARF), the nonprofit patent licensing arm of the University of Wisconsin-Madison. WARF explicitly touts the benefits of its licensing revenue, which created a \$2 Billion endowment over the years.<sup>155</sup> According to WARF, the licensing corporation has over the years contributed to the funding of fifty-eight building projects, provided funds for research facilities, and supported faculty and staff salaries.<sup>156</sup> The foundation's contribution to the University in 2011 was \$66.2 million.<sup>157</sup> This is money that Wisconsin taxpayers and students will not be paying.

It is certainly true that long-time licensing entities, like WARF, are unlikely to suffer substantially with the adoption of an anti-troll posture. But there may be some revenue impact, and it is important to include this broader group of licensing beneficiaries as stakeholders in the debate.

#### C. Indirect Economic Beneficiaries

In the same way that policymakers and scholars consider the broader positive impacts of the intellectual property system—promoting the progress of humanity, supporting American industry, etc.—one can do the same with college and university acquisition and licensing. There are,

<sup>154.</sup> Analogously, when valuing property by the income method, relief from royalty payments is as important as actual licensing revenue. *See* GORDON V. SMITH & RUS-SELL L. PARR, VALUATION OF INTELLECTUAL PROPERTY & INTANGIBLE ASSETS (3d ed. 2000).

<sup>155.</sup> *About Us*, WIS. ALUMNI RES. FOUNDATION, http://www.warf.org/about-us/about-us.cmsx (last visited Apr. 15, 2015).

<sup>156.</sup> *Benefits to UW-Madison*, WIS. ALUMNI RES. FOUNDATION, http://www.warf.org/about-us/background/benefits-to-uw-madison/benefits-to-uw-madison.cmsx (last visited Apr. 15, 2015).

<sup>157.</sup> Id.

however, some important differences. Patents are supposed to provide incentives to invent something that would not be invented without the possibility of an economic reward.<sup>158</sup> Society benefits when inventors bring these ideas into the sun rather than keep them as trade secrets.<sup>159</sup> Although it differs depending on the art, private industry can be expected to invent some things specifically because of patents.

Colleges and universities, on the other hand, are filled with faculty members and staff who would probably undertake almost the same amount of inventing in the absence of patents. The incentives to create are primarily provided by a desire for peer-recognition and to satisfy tenure and promotion requirements. It is possible that some amount of inventing is redirected away from basic research to more applied ideas in view of the possibility of licensing revenue,<sup>160</sup> but that is likely a small consideration and the extent to which this is a positive shift is debatable at least. So the fundamental societal benefit of patenting is likely not impacted much by college and university activity in this area. In fact, given that there is a cost to patents in terms of temporary monopoly, one could reasonably argue that society tallies a net deficit.

Where college and university patenting takes on a more clearly positive societal role is in the follow-up development of patented information. In addition to providing an incentive to invent in the first place, patents can provide a competitive advantage that creates an incentive for investors to jump in.<sup>161</sup> Many industry licensing arrangements with colleges and universities would be impossible without patents and certainly college and university start-ups are greatly encouraged by intellectual property exclusivity. As noted above, this commercialization was the explicit goal of the Bayh-Dole Act. According to a recent AUTM licensing survey, 705 startup companies formed and 591 commercial products were created based on college and university patent licensing in 2012 alone.<sup>162</sup>

It is of course debatable whether, in a given context, proprietary commercialization yields greater benefits than contributing information to the public domain. The open source movement depends on the notion of shared information at the base of further development. To that end, college and university patenting can still play a role. It is possible to use patents in

161. Brett M. Frischmann, *The Pull of Patents*, 77 FORDHAM L. REV. 2143, 2156–57 (2009).

<sup>158.</sup> See Daniel R. Cahoy, An Incrementalist Approach to Patent Reform Policy, 9 N.Y.U. J. LEGIS. & PUB. POL'Y 587, 598–99 (2005) (describing the appropriate incentive mechanism in the patent system, which is to increase inventive activity above the level that would exist without the rights).

<sup>159.</sup> WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 326–29 (2003).

<sup>160.</sup> Love, *supra* note 150, at 285.

<sup>162.</sup> AUTM SURVEY, *supra* note 146, at 12.

a manner that permits some direction and control or protection in an industry that cannot fully thrive in a nonproprietary role. An example of a bet on this behavior is Elon Musk's recent announcement that Tesla will open its patent portfolio to competitors through a commitment not to enforce them.<sup>163</sup> The goal is more collaboration in the fundamentals of electric car development such that an industry with a critical mass forms. By continuing to own the patents, Tesla can retain some control over the technology and even provide some protection to those interested in investing in competing ventures.

# IV. THE FAILURE OF COLLEGES AND UNIVERSITIES TO RESPOND TO STAKEHOLDERS

Clearly, colleges and universities have an obligation to balance the interests of various stakeholders. To date, however, college and university balancing efforts have fallen short. One reason is that the large and complex institutions that tend to own the most property fail to undertake a global approach, with different offices controlling different rights and no comprehensive understanding of college or "university IP." A second reason is that colleges and universities often default to unilateral abandonment and dedication to the public domain because of a broad public service posture and intellectual property owner-stakeholders do not have a seat at the table. Guidance could come from state actors, such as the federal government, which hold a lot of sway through the enabling legislation of the Bayh-Dole Act and federal patent and copyright law. But such efforts have failed due in part to strong college and university resistance to new legislative barriers. The status quo is inequitable and likely not sustainable.

# A. The Breakdown of Current College and University Integration Efforts

Given the diversity of college and university ownership and interests, it might seem desirable to take a more or less market approach and permit colleges and universities to set the policies that work best for their constituents. But there is good reason to think that institutional barriers prevent an effective college or university response. It is fair to suggest that colleges and universities do not fully appreciate the stakeholder issues, utilize sparse toolkits, and employ an oppositional approach to top-down reform.

# 1. Global Administration of Intellectual Property Is Rare But Important

Colleges and universities are, by nature, decentralized entities. They

<sup>163.</sup> Elon Musk, *All Our Patent Are* [sic] *Belong to You*, TESLA BLOG (June 12, 2014), http://www.teslamotors.com/blog/all-our-patent-are-belong-you.

bring together multiple disciplines that produce knowledge and intellectual content in a great variety of ways. Perhaps for that reason, they have commonly administered intellectual property in different units with varying levels of autonomy.<sup>164</sup>

One could ask whether it makes sense to administer college and university intellectual property as a single concept. In fact, there are social, economic and legal threads that connect intellectual property in a way that legitimizes some collective administration. Courts often borrow concepts from one area—such as applying the law from inducement to infringe a patent to copyright infringement<sup>165</sup>—in order to ground analogous doctrine. It would make sense to pursue a central strategy.

#### 2. Unilateral Embargoes are a Poor Default Solution

A straightforward way for colleges and universities to avoid supporting bad behavior is to structure intellectual property sales and licenses such that they are unattractive to such entities. While this may render the rights unattractive to others as well, the college or university could at least feel secure that it will not face the scrutiny of those who believe tech transfer is part of the problem.<sup>166</sup> For example, in the Penn State patent auction discussed above, the university's requirement that it control litigation for a period of six months likely dissuaded opportunistic trolls hoping to make a quick buck after the license. The requirement for licensee use removed the prospect of sublicensing to accused infringers. But these provisions likely dissuaded legitimate licensees as well, particularly aggregators who might serve a useful purpose in putting together a suite of technology for others. The burden of Penn State's move (and similar actions by other colleges and universities) rests with their stakeholders.

Perhaps the greatest issue with the unilateral approach is that it places the inefficiencies and quirks of the intellectual property system on the shoulders of one party's stakeholders. For example, the aforementioned patent trolls are successful and problematic because patent litigation is expensive and there is significant information asymmetry. They take advantage of firms and individuals whose desire to avoid litigation exceeds the troll's proposed licensing fee. But that is not an immoral tactic per se. Many business interactions related to law involve the threat of litigation as

<sup>164.</sup> Vertinsky, *supra* note 141, at 1985–88.

<sup>165.</sup> Metro-Goldwyn-Mayer Studios Inc. v. Grokster Ltd., 545 U.S. 913, 936–37 (2005).

<sup>166.</sup> See April Glaser, Students and Researchers: Take a Stand Against Patent Trolls, ELEC. FRONTIER FOUND. (June 12, 2014), https://www.eff.org/deeplinks/2014/05/students-and-researchers-take-stand-against-patent-trolls (suggesting that colleges and universities are not acting in the best interests of their stakeholders when they oppose anti-troll legislation).

a bargaining chip. What sets trolls apart is the additional suspicion that they are working with invalid patents. The patent threat does become a social policy issue when the most basic litigation costs exceed the advantages of proving the weakest patent invalid. We disparage weak patent holders who contribute to the inequitable litigation environment by providing their rights to patent trolls. If legitimate rights holders are aggressively asserting rights against all possible infringers, on the other hand, that is arguably a power they have earned under the law.

Against this backdrop, it appears that colleges and universities should bear a special burden only if they are attempting to license weak (*i.e.*, potentially invalid) intellectual property. Most colleges and universities would argue that their portfolios do not fall into this group, and they would certainly have the power to refrain from licensing problematic patents, copyrights and trademarks. If a college or university has secured a legitimate right, it has earned the right to monetize it, as any private firm does.

Another problem with the unilateral limitations on licenses is that they may end up dedicating an improperly large class of rights to the public domain. The commercialization that may accompany exclusive rights will not take place.

#### B. Targeted State Action is Often a Nonstarter

Another way to deal with the social consequences of college or university intellectual property ownership and enforcement is to undertake a topdown, regulatory approach that ensures equal treatment among schools. Similar to Bayh-Dole restrictions, it would be possible for federal and state legislatures to impose norms that closely align to societal expectations. That would, of course, create some difficulties in accounting for the character and mission differences in various types of schools. But even aside from the drafting complexities, regulatory responses are likely to fail due to the prominent political interference of a critical actor: the colleges and universities themselves.

Due to their economic contributions, non-profit missions, and strong emotional pull on their alumni, colleges and universities have often been able to exercise outsized political influence in opposing strict regulation over intellectual property. In fact, colleges and universities have been successful at preserving special considerations in areas such as educational use of copyrighted materials<sup>167</sup> and prior user right of patents.<sup>168</sup> They have not been shy in opposing legislative restrictions that would create a fair playing field for applying fair social use.

Perhaps the best example of college or university stonewalling of legis-

<sup>167. 17</sup> U.S.C. § 110 (2012).

<sup>168. 35</sup> U.S.C. § 273(e)(5) (2012).

lative approaches to fair social use is the recent failure of patent troll legislation. In the wake of media reports of various trolling ills, bills were introduced in Congress to make patent enforcement more difficult.<sup>169</sup> In July 2013, the White House released a report from the President's Council of Economic Advisers, the National Economic Council, and the Office of Science & Technology Policy that identified the problems created by certain types of non-practicing entities:

[F]irms who do not practice the patents they own and instead engage in aggressive litigation to collect license and other fees from alleged infringers. A review of the evidence suggests that on balance, such patent assertion entities (PAEs) (also known as "patent trolls") have had a negative impact on innovation and economic growth.<sup>170</sup>

The report cites anecdotal examples and suggests that certain type of PAEs do nothing to increase innovation or develop products, but merely extract from businesses.<sup>171</sup> It highlights a number of victims, including small businesses and downstream users.<sup>172</sup>

In response to calls from industry and the public, Congress proposed several bills to curtail patent trolls. The most prominent bill, and the one seen as the best candidate for compromise and development, was S. 1720, sponsored by Senator Patrick Leahy. The bill contained provisions intended to increase the transparency of the parties, provide for customer stays, and scrutinize demand letters.<sup>173</sup> Other provisions, such as a heightened pleading requirement and more stringent fee shifting provisions were proposed in other bills<sup>174</sup> and considered for incorporation.

However, colleges and universities and small inventors launched an opposition campaign. For example, a consortium of interests including 124 colleges and universities, as well as smaller companies, expressed general concern with the direction of the anti-troll legislation:

We are concerned that some of the measures under consideration go far beyond what is necessary or desirable to combat abusive patent litigation, and, in fact, would do serious damage to the patent system. As it stands, many of the provisions assume that every patent holder is a patent troll. Drafting legislation in this way seriously weakens the ability of every patent holder to enforce a

<sup>169.</sup> See PATENT PROGRESS, supra note 91.

<sup>170.</sup> WHITE HOUSE REPORT, *supra* note 90, at 2.

<sup>171.</sup> *Id.* at 9–10.

<sup>172.</sup> *Id.* at 10.

<sup>173.</sup> Patent Transparency and Improvements Act, S.1720, 113th Cong. (2013).

<sup>174.</sup> Patent Abuse Reduction Act, S.1013, 113th Cong. (2013); Patent Litigation Integrity Act, S. 1612, 113th Cong. (2013). At least eleven other troll-related bills were proposed. *See* PATENT PROGRESS, *supra* note 91.

patent. This approach clearly favors a business model that does not rely on patents and tilts the balance in favor of patent infringers, thereby discouraging investment in innovation.<sup>175</sup>

Colleges and universities raised particular objections with regards to fee shifting, believing it prejudiced college and university patent enforcement, and increased transparency due to the concern that it might violate confidentiality agreements with venture capital investors among others.<sup>176</sup> The legislation came to a screeching halt in May, due in no small part to the opposition of colleges and universities.

In May 2014, Senator Leahy declared the effort dead by removing the legislation from the Senate Judiciary Committee's Agenda.<sup>177</sup> The efforts of the college and university community figured prominently in the defeat.<sup>178</sup> College and university associations declared satisfaction (i.e. relief).<sup>179</sup> Although they pledged a willingness to work with legislatures to provide a more palatable reform bill, it is not entirely clear that a route exists for doing so that would have much impact on trolling. Because of their deep interests in the patent world, colleges and universities are likely to stand in opposition to comprehensive anti-troll legislation.<sup>180</sup> In the wake of congressional inaction, recent Supreme Court cases have actually done the most to take some air out of patent trolling strategies.<sup>181</sup>

176. University Views on Senate Legislative Proposals to Curb Abusive Patent Practices, ASS'N OF AM. UNIV. 2–3 (Mar. 19, 2014), available at https://www.aau.edu/WorkArea/DownloadAsset.aspx?id=15119.

177. Edward Wyatt, *Legislation To Protect Against "Patent Trolls" is Shelved*, N.Y. TIMES, May 21, 2014, http://www.nytimes.com/2014/05/22/business/legislation-to-protect-against-patent-trolls-is-shelved.html.

178. See Joe Mullen, *How the patent trolls won in Congress*, ARS TECHNICA (May 23, 2014), http://arstechnica.com/tech-policy/2014/05/how-the-patent-trolls-won-in-congress/ (referring to the "Innovation Alliance's" opposition as a major reason for the bill's failure).

179. University Associations & Innovation Alliance Applaud Decision to Hold on Patent Legislation, ASS'N OF AM. UNIV. (May 21, 2014), available at https://www.aau.edu/WorkArea/DownloadAsset.aspx?id=15276.

<sup>175.</sup> Letter from Patent Coalition, to the Hon. Patrick Leahy & Hon. Chuck Grassely, Comm. on the Judiciary (Apr. 28, 2014), *available at* https://www.aau.edu/WorkArea/DownloadAsset.aspx?id=14795.

<sup>180.</sup> *See, e.g.*, Letter from 14 Big Ten University Presidents to Congressman Sean Duffy, (Jan. 20, 2015), *available at* http://patentdocs.typepad.com/files/big-10-letter.pdf (letter in opposition to the Innovation Act, H.R. 9, 114th Cong. 2015).

<sup>181.</sup> In two recent cases, the Supreme Court took some of the air out patent trolling strategies by making fee shifting more likely. In *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), a case involving a patent on elliptical exercise machines, the Court determined that an "exceptional" case that could give rise to fee shifting under the patent act was not as strict as the Federal Circuit had previously determined. Exceptional cases, according to the Court, were merely those that stand out in terms of the parties' litigating positions or the unreasonable manner of the litigation. *Id.* at 1756. In *Highmark Inc. v. Allcare Health Management Systems, Inc.*, 134 S. Ct. 1744 (2014), a case involving patents on methods in managed health care systems, the

#### V. A NEW MODEL FOR BALANCING CONFLICTING STAKEHOLDER INTERESTS: "FAIR SOCIAL USE"

Despite their interest in intellectual property-based profits, many colleges and universities have embraced socially responsible rights management. But it is not entirely clear what role colleges and universities should play. To some, it is obvious that colleges and universities must act to limit their negative social impacts whenever identified. After all, colleges and universities desire to make positive social contributions and be viewed as good They embrace sustainability,<sup>182</sup> host philanthropic public citizens. events,<sup>183</sup> and encourage faculty to contribute to the community. And they certainly claim to care about commercialization over litigation.<sup>184</sup> One might expect that they would be more proactive than a firm in a similar position. However, because a broad stakeholder view makes clear the harm that legitimate beneficiaries may suffer, the answers are less than clear. Colleges and universities also strive to fulfill their employee obligations in good faith and serve as good stewards of their publicly supported property. These conflicting stakeholder interests require a more balanced approach.

Court determined that because the exceptional determination rested in the discretion of the district court, it was reviewable only for abuse of discretion. Id. at 1749. Together, Octane and Highmark make it more likely that a defendant will be awarded fees when sued by a troll, though the needle has not been moved a great deal. Another recent Supreme Court case that may create a barrier for some types of trolling behavior is Limelight Networks, Inc. v. Akamai Technologies, Inc., 134 S. Ct. 2111 (2014). In that case, the plaintiff asserted infringement of a patent covering data delivery over a content delivery network (CDN). Id. The defendant, however, did not complete all of the steps of the claimed invention. Id. In fact, it appeared that no defendant directly infringed (as defined in prior case law) by completing all of the steps of the claim. Id. The Court determined that such divided infringement could not constitute inducement under the patent act. Id. at 2118. The consequence for patent trolls is that certain method patents that require end-user interaction may no longer be valid, and this is arguably a larger portion of trolling patents. See Shubha Ghosh, No Gifts for Patent Trolls, NAT'L REV. ONLINE (Apr. 29, 2014), http://www.nationalreview.com/article/376780/no-giftspatent-trolls-shubha-ghosh (arguing, before the Court's decision, that the Limelight case is important for controlling the effects of widespread patent litigation).

<sup>182.</sup> See, e.g., School of Sustainability, ARIZONA STATE UNIV., http://schoolofsustainability.asu.edu/ (last visited Apr. 17, 2015) (information on ASU's prominent school of sustainability).

<sup>183.</sup> *See*, *e.g.*, Penn State IFC/Panhellenic Dance Marathon (THON), https://thon.org/ (last visited Apr. 17, 2015) (university student organization directed to raising money for childhoods cancer).

<sup>184.</sup> *See* Gene Quinn, *Universities are NOT Patent Trolls*, IPWATCHDOG (June 6, 2014), http://www.ipwatchdog.com/2014/06/06/universities-are-not-patent-trolls/id

<sup>=49951/ (</sup>interviewing AUTM President Jane Muir, who declares "university tech transfer offices were put into place to ensure that the new discoveries that happen in the research laboratories ultimately get out into the marketplace by way of product and services that improve the human condition.").

#### A. Fair Use as a Model

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It may seem at first to be an impossible task to internally balance the opposing goals of intellectual property beneficiaries and the needs of society. Interests and incentives must push decision makers toward a particular end, and, outside of an adversarial hearing, it is inherently difficult to consider the views of those not at the table. This is certainly an argument for top-down regulation with mandated answers to complex problems. But, in fact, there are some excellent examples of balancing mechanisms that can work internally and efficiently lead to fair outcomes (or at least something approaching that). The closest fit is the very familiar exception for fair use in copyright<sup>185</sup> and trademark law.

Fair use is a concept that first gained hold in copyright law as a way to balance copyright owners' interests with the speech rights of society. It has long been understood that strong rights can have unintended spillover effects. Often these spillovers do not significantly serve the content owner, but have the potential to cause great harm to society. For example, a news organization may need to refer to a controversial passage from a web video, and while the excerpts use does not diminish the copyright owners potential for profit, it does greatly enhance society's ability to discuss matters of public concern. Attempting to remedy this situation by carving out blanket exceptions can reduce the incentive to create, which in the long term causes societal harm as well. Thus, there is a need for a test that balances interests in a relatively predictable way.

Courts have been using some form of a multi-factored test in the United States at least since the case of *Folsom v. Marsh* in 1841.<sup>186</sup> There, Justice Story articulated balancing principles that continue to guide modern analysis.<sup>187</sup> Four factors were codified in the Copyright Act of 1976: (1) purpose and character of the use; (2) nature of the copyrighted work; (3) amount used in relation to entire copyrighted work; and (4) the effect on the market for the copyrighted use.<sup>188</sup> The extent to which, overall, these factors weigh more in favor of the content owner or the user dictates whether the use is fair and provides a defense to infringement.<sup>189</sup> Fair use has been clearly expanded to trademark law in which it balances the likelihood of consumer confusion with a societal interest in nominative and other

<sup>185. 17</sup> U.S.C. § 107 (2012).

<sup>186.</sup> No. 4901, 9 F. Cas. 342 (C.C. D. Mass 1841).

<sup>187.</sup> See Ned Snow, *The Forgotten Right of Fair Use*, 62 CASE W. RES. L. REV. 135, 145–47 (2011) (describing Justice Story's intent in creating principles for determining justifiable use and their future application).

<sup>188. 17</sup> U.S.C. § 107 (2012).

<sup>189.</sup> Technically, fair use is an exception to infringement rather than a defense, but most courts address it like a defense and it has become the more common interpretation. Ned Snow, *Proving Fair Use: Burden of Proof as Burden of Speech*, 31 CARDOZO L. REV. 1781, 1787–88 (2010).

speech-related uses.190

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Although we often think about fair use as a court's assessment tool, it is just as important in an initial assessment. Property owners and users are expected to consider fair use before acting. This expectation is exemplified in copyright law by the damages limitation premised on a good faith reliance on fair use<sup>191</sup> as well as the penalty that exists for issuing a take down notice under the Digital Millennium Copyright Act without considering the potential for fair use.<sup>192</sup> It is reasonable to expect laypersons to be able to use and apply tests that balance property owner and societal rights.

#### B. The Elements of a Fair Social Use Framework

The need for a balancing test in addressing college or universitylicensing limitations is apparent. In any given instance, the stakeholder interests can be broken down to beneficiaries versus societal freedom, just as in copyright/trademark fair use. But, of course, the issues and contexts are much broader than those existing formats. Speech is only one concern, and, arguably, all aspects of human rights could be entertained. Additionally, there is no fair use provision at all in patent law, and a sui generis system would be necessary to comprehensively treat innovation issues alongside those for creative works. Truly, a "fair social use" test is called for.

For some situations, the analysis may be relatively straightforward. For example, a license for the University of Florida's drink sold under the "Gatorade" mark<sup>193</sup> is unlikely to raise societal issues that require burdensome restrictions in need of balancing (see Figure 3). Conversely, a weak patent obtained only to prevent safety or environmental impact testing<sup>194</sup> is unlikely to demand respect for property owner rights and incentives.

<sup>190.</sup> Mark Bartholomew & John Tehranian, An Intersystemic View of Intellectual Property and Free Speech, 81 GEO. WASH. L. REV. 1, 41–43 (2013).

<sup>191. 17</sup> U.S.C. § 504(c)(2) (2012).

<sup>192.</sup> *See* Online Policy Group v. Diebold, Inc., 337 F. Supp. 2d 1195, 1204 (N.D. Cal. 2004) (finding that plaintiff violation 17 U.S.C. 512(f) by failing to consider defendant's fair use rights).

<sup>193.</sup> Joe Kays & Arline Phillips-Han, *Gatorade: The Idea that Launched an Industry*, EXPLORE RESEARCH AT THE UNIV. OF FLA. (2003), *available at* http://www.research.ufl.edu/publications/explore/v08n1/gatorade.html.

<sup>194.</sup> See generally Daniel R. Cahoy, Joel Gehman & Zhen Lei, Fracking Patents: The Emergence of Patents as Information-Containment Tools in Shale Drilling, 19 MICH. TELECOMM. & TECH. L. REV. 279 (2013) (describing how patents may be used to constrain the testing of hydraulic fracturing technology in order to contain safety concerns).

Figure 3: Ambiguity in Fair Social Use



#### **Negative Social Impact**

But in many tough cases, applying "fair social use" requires more than just eyeballing where a particular license or right fits in terms of equity. Depending on the license terms, market and social needs, a range of positives and negatives exist. For example, a college or university license for patented technology that is attractive to trolls may weigh in favor of profit limiting restriction if the licensee is likely to impost negative social externalities and return little revenue to the college or university. A license for a patent on essential medicine may not merit restriction if the only market is the developing world and low price restriction would disincentivize potential licensees. Both situations could easily be reversed with different facts. It is important to have a more sophisticated means of analysis than intellectual property, technology or licensee type.

Clearly, a detailed set of factors is necessary to fully assess fair social use. Although there are many possible perspectives that one could include, a basic assessment would highlight the college's or university's unique obligations and mission. The three basic factors of such analyses are: (1) the overall impact on the college or university; (2) the direct impact on employees; and (3) how closely the restriction aligns with a particular college's or university's mission.

# 1. Overall College or University Impact

In weighing the equity of intellectual property use restriction, a primary factor must be the overall impact on the college or university. While this measure could be interpreted as purely quantitative, ideally it would take into account how lost revenue impacts the institution. In other words, a reduction in staffing at the technology transfer office may not be as consequential as eliminating a position that directly serves student interests. In addition, it seems clear that some large colleges and universities may be in a better position to budget for more social use than others, ensuring that lost revenue is predicted and accounted for. Again this is a goal of making the process less ad hoc and more fully integrated into the college or university mission. It is possible that an endowment may specifically fund some types of college or university social use. Thus, one undertakes an impact assessment only with a thorough understanding of the nature of the institution.

#### 2. Direct Employee Impacts

As a stand alone factor, the assessment of specific, direct employee impact is important to bring out the major stakeholder impact of college or university intellectual property stewardship. Because, by law and practice, college and university employees are direct beneficiaries of intellectual property in ways that private company employees are not, they deserve special consideration. Even if the overall impact of restricting an opportunity for sale or license is relatively small, when an employee specifically loses income, it is significant. Such is commonly the case in the context of patent and copyright restrictions, but rarely in trademark.

One way to add depth and flexibility to the assessment of employee impacts is to provide a clear forum for employee participation in social use decision-making. It may be the case that employees are quite willing to forego additional income if an important social goal is met. Bringing employees into the picture could be as simple as asking them to respond to a survey of preferences, or as complicated as inviting them to actually play a role in negotiation. Notably, for patent intellectual property, inventoremployees are often on the hook for continuing participation in the prosecution process and occasionally helping to identify licensees. This existing relationship is a natural opening for employee integration in decisionmaking.

## 3. Restriction Alignment with University or College Social Goal

Not all social use restrictions meet with a college's or university's interests and goals. Obviously, different types of non-profit colleges and universities—public, religious, historically black, etc.—can have different priorities in terms of social goals. Some social uses may legitimately be of no interest to particular institutions. They may even conflict with other college or university social goals, and should at least be attenuated if not.

More generally, some social uses may have a market goal that is less important to the overall social mission than impacting the health or wellbeing of vulnerable populations. For example, if a college or university were to relax some intellectual property enforcement policies to benefit local businesses (e.g., regarding the use of college and university trademarks on t-shirts or copyrighted lecture materials), that may be less important than a restriction that ensures access to medicines or prevents child labor. It truly depends on the nature of the institution.

Of course, determining the alignment of social goals and college or university ideals presumes that the college's or university's ideals are actually known by the administration. To some extent, this knowledge can be enhanced through advocacy groups like United Students Against Sweatshops that bring to light overlooked issues. But for more complex or obscure social issues, surveys may be necessary to gauge interests. Regardless, the goal of assessing alignment and strength is important as a means of providing some justification for the impact on stakeholders.

In addition to alignment, it is also important to measure the actual social impact of any limitation. Although related to subject matter alignment—a restriction with little impact doesn't do much to serve a college's or university's social mission, even if aligned—impact implies a quantified assessment that considers the specific intellectual property at issue. For example, a patent for a niche technology field, a copyright for an obscure blog and a trademark for an outdated slogan are all unlikely to have a major social impact. Severe restrictions on licenses related to these items will do little good.

#### 4. An Example Fair Social Use Balancing Mechanism

Giving voice to the above factors is useful in and of itself. Simply expressing the extent to which employees may be impacted versus the social utility of licensing restrictions can be a useful exercise. However, for a more reportable and quantifiable assessment, it can be helpful to present the test as a series of strength measures. One might employ something akin to Likert items<sup>195</sup> that are summed on a scale. Consider the example in Figure 4, below, that charts the differences in a college or university trademark license for a product like Gatorade, a license for a patent that is primarily useful for restricting third party safety testing, and a license for a patent that may be attractive to trolls but would otherwise be abandoned.

195. See Rensis Likert, A Technique for the Measurement of Attitudes, 22 AR-CHIVES OF PSYCHOL. 140 (R.S. Woodworth ed., 1932). 2015]



Figure 4. Fair Social Use Balancing Example

Gatorade brings in high college and university revenue with some royalty sharing with faculty and little interference with college and university social goals.<sup>196</sup> The final scale should be substantially in favor of an unencumbered license. On the other hand, the patent restricting safety testing is unlikely to be commercialized and bring in revenue for either the college or university or individual employees, yet it is may impede important information production by third parties. The final scale is substantially in favor of a restricted licensing that ensures non-commercial third parties can still access the technology. And in the middle is the troll-attracting technology, which has strong employee impacts and favors an unencumbered license without more evidence of a social impact.

C. Additional Measures that Promote Fair Social Use

Given the large percentage of college and university patents that have Bayh-Dole obligations, it should be possible to modify the statute in a way that reduces the likelihood of licensing to trolls. Many of the provisions that colleges and universities are attempting to enact independently could be applied to all government-supported inventions. The advantage would be to ensure an equitable sharing of the burdens.

<sup>196.</sup> See Rooksby, supra note 41, at 400 n.245.

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In addition, intellectual property exchanges or pooling arrangement may permit rights to be aggregated and licensed on terms that limit the worst behavior. As with Bayh-Dole act revisions, the advantage is that many college and university actors could share the burden of restriction. In addition, more rights may be licensed instead of abandoned unilaterally.

#### CONCLUSION

Although colleges and universities may have important impacts on society through their intellectual property licensing and enforcement, they also have important stakeholders with legitimate demands for rights monetization. There is no easy way to elevate one set of interests over the other. The key is to balance sales and licensing efforts in a manner that will address the most concerning social harms while preserving income. This approach will not guarantee that college or university intellectual property will never create a barrier for vulnerable populations and firms. But rights that are legitimately earned may always have this effect, and normative evaluation should take place only alongside a consideration of the entirety of college and university stakeholder obligations and benefits.