

Policy Memorandum to Bill Cadman: Student Intellectual Property - A technology battle on the horizon

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Executive Summary: Undergraduate students who are not employed by universities may possess severely limited rights to their inventions and innovations. For example, within the University of Colorado system regardless of employment status within the institution, students are entitled to 25% of the intellectual property their inventions create if they use significant resources as outlined by the intellectual property policy (University of Colorado, 2006). It is time to spearhead a reformation that would establish a floor limitation of 75% student ownership and 25% institutional ownership of intellectual property. This distribution of ownership will act to resolve current problems perpetuated by outdated or nonexistent policies at universities nationwide, and it will give students the tools and ownership to continue developing their creation upon completing their university career.

I. Introduction

Intellectual property (IP) is a product of mental creativity. It includes scientific developments, music, symbols, artistic works, discoveries, and inventions. We create our own IP every day, and with that comes the need for recognition and ownership of that creation. IP can often lead to a patent, copyright, or trademark so the property may be protected and marketed.

Universities within the U.S. are rich hubs for the creation of student IP. They draw pride from providing a space where students are encouraged to innovate and create. Currently, many innovative students lack the ability and knowledge to take ownership of their creations.

Intellectual property policies are written and executed at the university level. Consequently, there is no relevant local, state, or national legislative

statute governing student IP--excluding Ohio and Minnesota. Going forward, more legislative bodies need to follow the example of Ohio and Minnesota in providing this type of legislative statute; as President Obama said in 2010, "Our single greatest asset is the innovation and the ingenuity and creativity of the American people. It is essential to our prosperity and it will only become more so in this century. But it's only a competitive advantage if our companies know that someone else can't just steal that idea and duplicate it with cheaper inputs and labor."

At the university level, intellectual property is handled by an office known as a Technology Transfer Office (TTO). The mission of a TTO is best described by Stanford University: "[the mission of Stanford's TTO] is to promote the transfer of Stanford technology for society's use and benefit while generating unrestricted income to support

research and education.” TTOs have provided the foundation for the American university system to drive the transfer of new technology developed in the lab to tangible, commercially viable products. Currently, TTOs have small budgets and staff sizes similar to other university offices and are tasked with managing the IP of university staff and faculty. However, in recent years the growing population of student innovators has produced the need for a greater focus on student IP policies.

II. Student intellectual property – an unknown frontier

To identify the IP policy of an institution as a student, they must contact their universities’ TTO to learn exactly how ownership is distributed between parties. Depending on the university, students may only own a portion or none of their creation. As Figure 1 depicts, the percentage of IP ownership given to the student is often low. Additionally, in some cases student ownership cannot be determined by an existing policy. The uncertainty regarding IP ownership has driven individuals and organizations to speak up, such as members of the University Innovation Fellows, the Association of University Technology Management, and Brad Feld, Co-Founder of Tech-Stars to speak up about these issues.

Currently university intellectual property policies use the term “significant resources” to determine whether or not the university owns the IP in question. In many cases, “significant resources” is never clearly defined and differs between institutions. In addition to this confusing terminology, the legal reach of universities in the creation of university IP is a concern. From a student’s dorm room to the lab in the middle of campus, depending on the existing policy, universities have the full legal right to take ownership of that creation, assuming that it was developed on university grounds. Harvard University provides a good example: their intellectual property policy states that 100% of the intellectual property belongs to the university, leaving nothing for the student inventor if any university facilities were utilized.

III. The uncertainty of student intellectual property: case studies

The University Environment

Many students are asking the question: “is getting a bachelor’s degree even worth the cost?” From 2003 to 2013, tuition costs increased by nearly 80%, eclipsing the increases in costs of medical care (43.1%) and the costs of food and beverage (31.2 %) (US News, 2013). Now more than ever before, undergraduates have to maximize their time and resources during their collegiate career to get the most for their dollar. To do so, undergraduates are forming research groups, pursuing ideas, and producing inventions on campus to be able to gain more experience by the time they graduate.

From 2005 to 2012, national enrollment of students dropped 3.1 percent (National Center for Education Statistics, 2015). The link between student engagement and university retention/enrollment has been studied and described by multiple sources, such as the National Survey of Student Engagement and George Kuh at Ohio State University. Universities are meant to support the student through the beginning of their professional career by acting as educator, mentor, and provider of resources in return for tuition fees. By giving students the proper tools and guidance, the university can prosper and continue to build a strong alumni network of successful graduates who have the ability to donate back to their alma mater. Universities demonstrate their dedication to assisting students’ progress towards success by actively supporting students, and by allowing them to retain ownership of their work.

Another benefit of student friendly policies is a better ability to pay off the large amount of student debt that graduates face today. In fact, by giving students the tools to take their IP to the next level via creating a company etc. could result in a paycheck to the student in the first days following graduation.

Colorado

Like most states, universities within Colorado are free to dictate their intellectual property policy as they see fit. We analyzed the intellectual property policies identified on the individual websites of 17 four-year degree granting universities in Colorado. Mirroring most university IP policy structures, we divided our analysis into two parts: the equity share for a student (ownership of the intellectual property) and the royalty share derived from the licensing or sale of the intellectual property. Not all

universities recognize ownership and royalty as different and separate parts of IP policy. Our research aims to show the differences between university intellectual property policies within the state of Colorado, as shown in Figure 1.

Figure 1 lists the percentage ownership shares of the intellectual property of a student innovator. Of the 17 universities, 9 universities did not have a

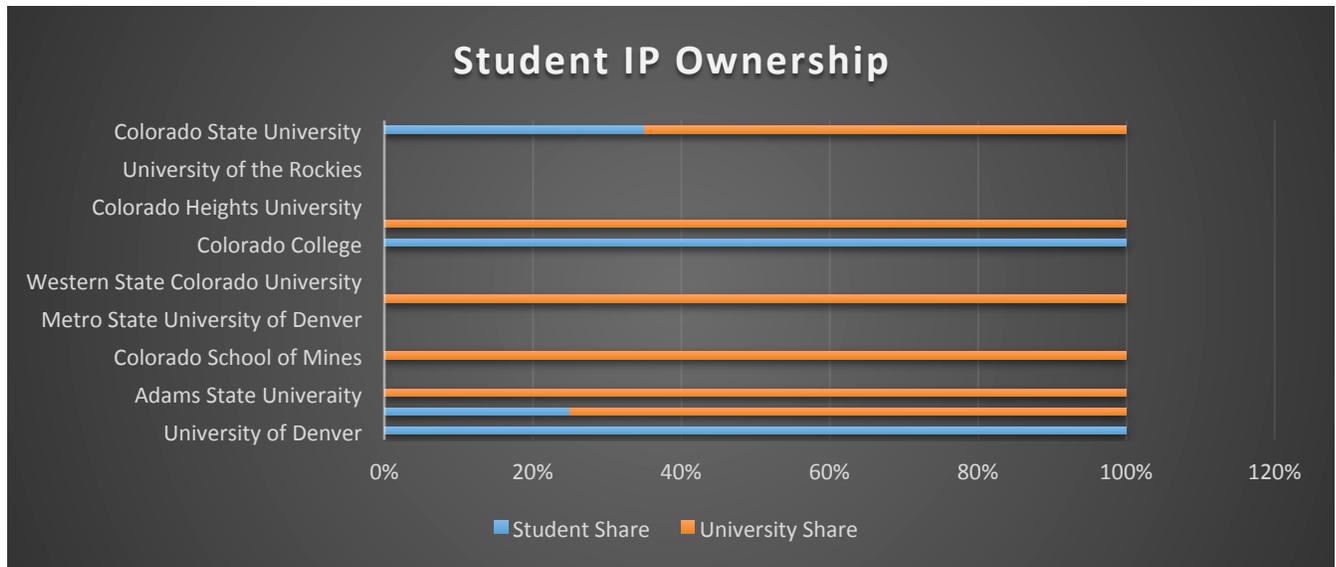


Figure 1. Student Intellectual Property ownership percentages as defined by university intellectual property policy obtained through public search of all public documents for all 4-year degree granting universities within the state of Colorado. Data collected by Students for Intellectual Property

public IP policy readily available on their website. Among the universities with an accessible IP policy, the average student ownership of their personal IP is 32.5%. The data used in these figures was found by calling university TTOs, searching university websites, and university student/faculty handbooks. Among universities specifying royalty policies regarding the revenue gained from intellectual property commercialization, the average royalty share given to a student creator is 24.1% with four universities claiming full ownership of any and all royalties (Figure 2).

In order to better understand the intellectual property atmosphere within the state of Colorado, the University of Colorado system's IP policy was analyzed. As a system composed of close to 57,000 (University of Colorado, 2010) students, these universities represent the most visible hub for higher education in Colorado. Universities within this system only grant 25% IP equity and royalty share to its students (University of Colorado, 2006) The IP policy reads, "Every included person, as a condition of employment, or of his/her education, and every user of University facilities shall comply with this policy." The statement above gives the

University of Colorado grounds to apply the IP policy not only to staff and faculty, but also to students.

Following the analysis of the general policy, it is necessary to understand the nature of the policy. The University of Colorado system distributes IP equity among four parties. Their policy states, "25 percent to discoverer(s) personally; 25 percent to a University campus account for support of discoverer's(s') research; 25 percent to an account for the benefit of the University; and 25 percent to the Campus Chancellor." (University of Colorado, 2006) This policy is written to specifically distribute equity in such a way that any student, faculty, or staff member under the University of Colorado system can only claim up to 25% of their intellectual property regardless of their status within the system.

IV. Current legislative case studies

In the year 2000, Ohio passed state legislation originally written with the intention of adding clarity to the role of staff and faculty regarding intellectual property. This policy has the potential to adversely affect student innovation. Ohio Revised Statute 3345.14: Rights to and interests in discoveries,

inventions or patents, specifically states that any discovery or piece of intellectual property created at any facility on campus is owned by the state. However, the state of Minnesota has implemented legislation with the opposite effect. The passage of chapter 3 of the Minnesota State Colleges and University Board policy specifically states that any

creation made by any student is solely owned by the student even in case of employment by the university. Minnesota has set the example for universities intending to promote university students actively striving to be inventors and innovators. (Minnesota State Colleges and Universities Board Policies, 2002)

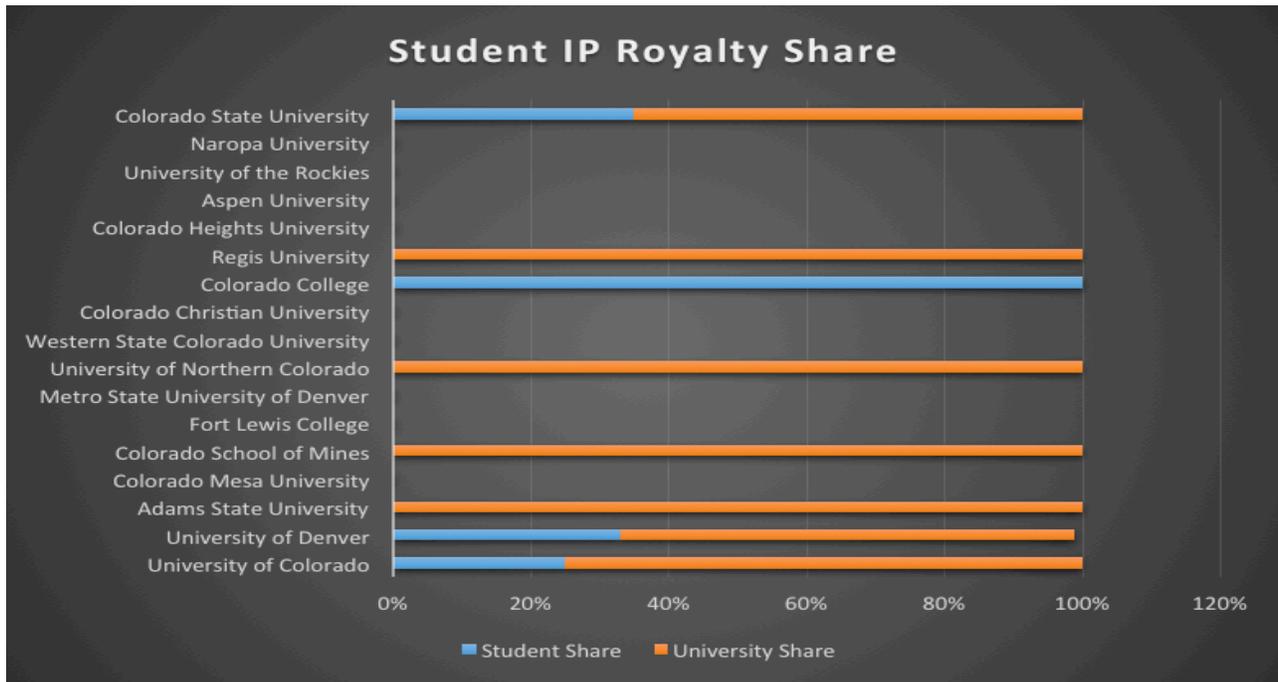


Figure 2. Student Intellectual Property royalty percentages as defined by university intellectual property policy obtained through public search of all public documents for all 4-year degree granting universities within the state of Colorado. Data collected by Students for Intellectual Property

V. What can be done?

The current policies on student IP need to be changed. Increasing the minimum IP percentage will give students across the country more of what they deserve. Students should receive a minimum of 75% of their intellectual property equity and royalty share. Although student ownership should increase, universities deserve equity and royalty for giving the student the resources and opportunity to advance their ideas. It is reasonable to expect that universities should receive 25% of any equity or royalty gained from the commercialization of any kind of intellectual property.

The policy proposed here would encompass all tuition paying students at all degree-granting institutions in the state of Colorado. It is essential to

ensure that every student who pays tuition dollars is not treated as faculty, as exemplified by the University of Colorado school system. Students who do not pay into the university and student employees, should and would be treated the same as any faculty or staff member under the current IP policy.

An exclusion to this policy will also exist in the case of grant funded research, where if any student creates IP under any kind of awarded grant, the intellectual property would be subject to the rules of the grant. This exclusion will allow the National Institutes of Health, the National Science Foundation, and many other granting agencies to continue to define how their money is used to create intellectual property.

VI. Conclusion

Motivated students want to further their education and careers by attending Universities, which are the best environments for students to create IP. Due to the scale of the proposed policy, it is reasonable to question the ability of federal legislation to resolve a situation as complicated as this. The impact of allowing students to develop intellectual property in any university could have unforeseen consequences; however, the benefits may outweigh the potential complications. The passage of a policy that grants students greater ownership of their own intellectual property and more royalty share will allow students in the state of

Colorado to take control of their innovative and entrepreneurial destinies.

As universities begin to address whether or not they want to advocate for a student friendly IP policy or for university owned IP, undergraduate students need to voice their thoughts on these policies. The United States of America prides itself in supporting the development of the most educated group of citizens in the world, students who are passionate about research, entrepreneurship, and service. Let's give students the ability to keep what they create on university campuses nationwide, give students tools to combat increasing student debt, and assist the creation of an innovative workforce.

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Author Biographies

Caleb Carr is a senior at the University of Colorado Denver studying both psychology and public policy. As a student who created a start-up to develop new rescue helicopter technologies, Caleb quickly learned the issues surrounding intellectual property at university campuses nationwide. To respond, Caleb helped develop a non-profit focused on pushing federal and state legislation surrounding student intellectual property within higher education. Following graduation this May, Caleb intends to continue his studies

pursuing a Master's in Public Administration degree and eventually medical school to be able to eventually work on federal and international health care policy.

Andrew Borman is a senior at the University of Oregon, majoring in both Psychology and Biology with a specialization in Neuroscience. He has been loosely working with colleague Caleb Carr and the Students for IP Rights for the past few years before actively participating in the creation of this document. After graduating with a Bachelor of Science in the two aforementioned majors, he intends to join the field of counselling psychology with the intent to help people work through their disorders and live healthier, happier lives. In the future, Andrew plans to continue his education post-graduation to eventually form an independent counselling practice to further accomplish this goal.

Dominick Kuljis grew up in Denver, Colorado and is studying Chemistry at University of Colorado, Denver. Chemistry has provided him the opportunity to be creative and shown him how to become innovative through participation in different research labs. His involvement in a local startup at CU Denver has ignited his passion for intellectual property awareness at his local university and universities nationwide. Through his involvement with Students For Intellectual Property Rights, Dominick hopes to spread awareness and leave his imprint of the IP rights of undergraduates nationwide.

James F. Vezina is a sophomore at the University of Colorado Denver, studying Business Finance and Economics, aspiring to continue education and attend graduate school to further my Economics background. He is the Director of Government Relations for a student run lobbying group, working with many students all around the country. He believes that education is the key to success and advancement, individually and also globally. Pushing forward is the goal, students everywhere need to be pushed to create and advance this world we all live in.

Jiri Karnos graduated from Metropolitan State University of Denver in 2014 with a degree in Journalism. Since May 2015, he works as a PR and Marketing Director for Students for Intellectual Property and The Ideation Foundation.

Vi Tran currently works as a Test Engineering Lab Technician supporting new medical product development for a high performance cable and wire manufacturer. Vi joined this organization as a University Innovation Fellow Alumni from Washington State University where she earned degrees in Bioengineering and Management Information Systems. While in school for her engineering degree she discovered a passion for innovation and a desire to empower students to take their dreams and make them a reality. Vi's previous work in the financial advisory industry, laboratory research experience, and extensive leadership positions has given her many valuable skills in both the technical and business areas. Her Bioengineering and research background helps her function well as the team leader in project design and she keeps the team on schedule. Her business education provides the team with the fundamental business administrative and operations insight for the development of the organization and finances. In addition, her financial advisory industry experiences have made her adept at identifying business opportunities, customer interface and service, meeting and achieving quantifiable goals, project management, and attracting strategic partners and investors. In her spare time she really likes to travel, read, eat at amazing restaurants and is currently working on her non-profit organizations as well as startup companies.