Intellectual Property, Students, Faculty, Staff, and the University: Who Owns What

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Many universities are starting entrepreneurial departments, start-up incubators, and collaborative centers. The question becomes, who owns the final product? What legal issues can stem from poorly constructed contracts? If the university is paying for resources, time, etc. is it the owner of the concept, product, or process?

A high-profile example would be Facebook. It was created by Mark Zuckerberg while he was a student at Harvard, in his dorm room. While he owns his intellectual property, had he used more of Harvard's resources, or had he been mentored by a faculty or staff member, or had Facebook been created during a sponsored project, the questions about who owns the for-profit venture become increasingly muddled.

There are few court decisions that have arisen on student intellectual property rights. Students are increasingly creating and inventing while on campus and intellectual property and its ownership will start to become more important topic for universities to consider. From the Bayh-Dole act to an overview of current university policies to current and past court decisions, this paper will discuss the increasing awareness of the need for intellectual property discussion.

Current Legislation

Intellectual property law has evolved from a brief line in the U.S. Constitution, to expanding definitions of copyright, starting with the original 1790 Copyright Act, to a statute in 1990 that protects architectural works, patent law and trademark law have also expanded from their original definitions. (Fisher, 1999). Prior to 1980, inventions made at universities with federal research funding and grants were assigned to the federal government. In 1980, the Bayh-Dole Act was passed. This act changed the ownership of those inventions to the university. The Bayh-Dole Act is increasingly being used to support student inventions and innovations.
Intellectual Property and the U.S. Constitution

Article I, section 8, clause 8 of the U.S. Constitution gives Congress the power “To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.” (U.S. Constitution) Basically, this gives Congress the power to enact legislation on copyrights and patents.

Copyright law has expanded greatly from the initial 1790 Copyright Act, especially as it regards duration and scope of the definition of copyrighted work. The original 1790 Copyright Act authors had the rights to their creations for fourteen years and if at the end of those fourteen years the author was still alive, the author could apply for an additional fourteen years. (Copyright Act of 1790). Currently, copyrights now extend to architectural works based on a statute in 1990. For those copyright holders that create on or after January 1, 1978, the author retains the rights to their work for their lifetime and 70 years after their death. (Chapter 3: Duration of Copyright, n.d.)

Similarly, patent law has expanded from its original form. The first Patent Act was enacted in 1790. This act covered the “useful arts” which mainly included the work by skilled artisans and workers, usually within the fields of engineering and manufacturing. To obtain a patent, inventors had to submit to an examination. This later was removed as a requirement in 1793 as a backlog of patent applications had accumulated. (Payne, 2015)

Bayh-Dole Act and university rights to intellectual property

The Bayh-Dole Act was passed in 1980. It changed the potential ownership of an invention or patent that was created using federal funding to allow universities, small businesses, or non-profits to pursue ownership of the intellectual property in preference of the government.
Prior to this act, any invention or patent created using federal funding belonged to the federal government. (Bayh-Dole Act: Landmark law helped universities lead the way, n.d.)

**Recent decisions based on Bayh-Dole.**

Recent decisions by the supreme court regarding Bayh-Dole and the ownership of intellectual property indicate a shift to providing ownership to faculty inventors. (Board of Trustees of the Leland Stanford Junior University v. Roche Molecular Systems, Inc., 2011)

In Stanford v. Roche (2011), a United States Supreme Court case, determined that the patent for an invention resides first with the inventor any obligations to assign those rights are secondary. The case arose after a Stanford University faculty member, who learned a process Cetus on HIV testing, the faculty member signed an agreement with Cetus that indicated future inventions based on the technique were to be assigned to Cetus. He also signed an agreement with Stanford that indicated he would assign his inventions to Stanford. After learning this process, he went back to Stanford and then with other Stanford employees, tested the technique. The research and procedure that came during this time was funded partially by the National Institutes of Health (NIH). Stanford proceeded to file several patents based on the technique.

Roche Molecular Systems bought Cetus and later created HIV detection kits which Stanford indicated that they infringed on three of those previous patents. Roche argued that it had acquired the rights when it had bought acquired Cetus and challenged the claim by Stanford. The US Supreme Court determined that the original rights were owned by Cetus based on the imputed knowledge of the agreement between the faculty member and Cetus.

The Supreme Court upheld the idea that US patent rights have always been initially vested in the inventor. The faculty member’s agreement with Cetus (therefore Roche) superseded that of the agreement with Stanford. While Stanford had argued that its claims were superior due
to the Bayh-Dole Act, the Supreme Court disagreed and stated that the language of the Bayh-Dole Act indicated that the first rights resided with the inventor. (Board of Trustees of the Leland Stanford Junior University v. Roche Molecular Systems, Inc., 2011)

**Intellectual Property Policies**

Many universities have detailed policies on faculty intellectual property ownership, but universities are behind when it comes to student intellectual property policy. Universities also have varied policies on non-academic employee intellectual property ownership which trend towards similar corporate policies regarding employee created work.

**National Associations and Best Practices**

Currently there are around 250 universities that have incubators or innovation centers. The Association of University Technology Managers (AUTM) and The American Association of University Professors (AAUP) have created best practices for managing student and faculty intellectual property.

According to AUTM, university intellectual property policies regarding students’ needs “to be carefully thought out, clearly worded, widely disseminated, and fair.” This means that the university has to determine its institutional objectives, the use of university resources to complete the project or invention, role of existing research programs, contractual enforceability, duration of rights, administrative overhead, and general strictness of the policy. (Barrow, et al., 2014)

AAUP policy is more extensive. They have 56 general principles that provide institutions a template for preserving the integrity of research, eliminating and managing conflicts of interest, establishing grievance procedures and due process rights, negotiations over patents and copyright, and ensuring ethics of research. These policies also inform how AAUP supports faculty on intellectual property issues. It is currently supporting faculty members at Stanford,
University of California Santa Cruz, and University of Chicago. (AAUP Statement on Intellectual Property, 2013)

University Policies

As students, faculty, and staff continue to create and innovate, universities have had to revise and even implement new policies that reflect the expanding role of entrepreneurship on campus. This includes industry sponsored projects, federally funded projects, capstone projects, and more.

Non-academic intellectual property policies.

Many universities are subjecting their non-academic employees to the same policies regarding materials created while employed by the university. The Savannah College of Art and Design’s Intellectual Property Policy addresses the ownership of copyright (not patents) of any materials created by employees and students. In a simplified form, it states that the university holds the copyright of any material created by an employee within the scope of their employment. For the works created by students, the university will hold the copyright if the student creates the work within the scope of employment or in the assistance of an employee. If the student is hired by the university have no rights to ownership of that work. (Intellectual property, n.d.)

Faculty intellectual property policies.

Many universities require faculty to assign their inventions to the university. In the example of Stanford v. Roche above, Stanford’s vague language regarding the policy at the time caused the Supreme Court to determine that it did not in fact hold the rights to the patents for the inventions developed by its faculty member. (Board of Trustees of the Leland Stanford Junior University v. Roche Molecular Systems, Inc., 2011) After this case, Stanford did update the
language in its faculty intellectual property policies. AAUP released a report regarding university policies on faculty generated intellectual property that discussed the heightened university ownership claims to items such as inventions all the way up to copyrightable material. They cite University of Pennsylvania’s draft of a non-compete policy to prevent faculty members from completing freelance work for online education companies. (Flaherty, 2013)

The decisions surrounding Stanford v. Roche (2011) have shown that university policy regarding faculty and university ownership needs to ensure that both the faculty member and the institution avoid any uncertainties. Faculty policies need to be clear, unambiguous, and ensure that the university and faculty enjoy the benefits of an invention.

**Student intellectual property policies.**

Student intellectual property policies vary greatly from university to university. These policies seem to fall into a few camps, the first being that the university has the rights to all student created intellectual property using university resources, the second, that students own their own intellectual property unless a previous contractual obligation is in place, and the third, somewhere between the first two that indicates university ownership of intellectual property if the student used substantial university resources to create. This also includes university right of use policy in which the student retains the rights to their intellectual property but the university reserves the right to use that property in promotion of university business.

Recently, the University of Missouri changed its policies on intellectual property based off the creation of an app by four university students. The app won them a trip to Apple headquarters and they received job offers from Google and other tech companies. The university then demanded 25% ownership of the app with 2/3 of any profits acquired. While this never went to court, it highlights the increasing need for clear and widely disseminated intellectual
property policy. The University of Missouri changed its policies based on this case. It now states that inventions or ideas developed by the student belong to the student unless there are prior agreements in place. (Zagier, 2011)

The University of Missouri’s new system defines several of the possible relationships that the student can have with the university and has policy in place for industry-sponsored projects and various agreements that the student may have to enter such as, non-disclosure agreements and non-compete agreements. The new policy states that students will retain the rights to their works barring previous agreements. (Intellectual property in student developed inventions FAQ, n.d.)

Similarly, Purdue University has opened up its intellectual property policies for students. Students will retain the rights to their works if there is not a previous contractual obligation in place. This includes works that are created while completing a course or with university resources if those resources are those generally available to all students. Students can leverage the university’s Office of Technology Commercialization in the pursuit of patent or copyright. This relationship does grant some rights to the university but the decision is up to the student to utilize it. (Sigurdson, 2013)

Harvard University has an extensive policy on intellectual property. It covers inventions and patents, copyrights, computer software, unpatented materials, and royalty sharing. This policy clearly outlines who owns what, the amounts for royalty sharing, and the process in which these types of intellectual property need to be reported. (Intellectual property policy, n.d.)

Finally, Pennsylvania State University has categorized its intellectual property policy into two distinct types of intellectual property. Research intellectual property and scholarly and instructional intellectual property. Research intellectual property requires a variety of people in
the university community to sign an intellectual property agreement. This agreement gives the rights of any technologies or inventions developed as part of university research to the university. The rights with scholarly and instructional intellectual property on the other hand, usually reside with the creator, with the university receiving free use rights of said property. In the cases where there is overlap with research and scholarly intellectual property, these cases will be handled on a case by case basis. (IPG01 Faculty guidance on student intellectual property rights (formerly RAG12), 2015)

Current Issues

University Sponsored Entrepreneurship

University sponsored entrepreneurship is becoming more and more common in support of students creating product or inventions. While this is becoming more common, many universities do not have the policies in place to work with or harness the works of student created intellectual property. With examples that span from Marc Andreessen’s creation of Mosaic, which later became Netscape, and laid the foundation for Firefox (created while Andreessen was a student at University of Illinois), to PageRank which powers Google (created by Larry Page while at Stanford), to Facebook (created by Mark Zuckerberg while at Harvard), it is increasingly important for universities to create policies regarding university sponsored entrepreneurship. (Wright & Katz, 2016)

Wright and Katz (2016) have shown that many university policies are blanket policies that do not differentiate between different types of student creations. One example is that of the University of Washington, which states that all student creations belong to the university. This
includes creations that are made even if the student only used the university’s internet
connection, the university library, or utilized their faculty as a resource.

Another problem with these current policies as they stand, is the time that is required or
necessary for the university to act on the filing of a patent or copyrightable material. With
students creating in mass, universities need to update their policies to reflect the rapid growth in
student developed intellectual property. While AUTM has guidelines for universities regarding
student intellectual property, there is a gap in advocacy for the student. At this time, it is up to
students to understand who owns their ideas. There are some universities that are addressing this
through intellectual property education and the use of nondisclosure agreements. (Wright &
Katz, 2016)

Industry Sponsored Projects on Campus

As shown through several of the university policies above, universities are assigning the
rights of inventions and copyrightable material to the student unless a previous agreement was
determined by the company sponsoring the project. At the Savannah College of Art and Design,
it is common for the materials created during an industry sponsored course or industry sponsored
project to go to the company. The student will have the ability to use any materials they created
as part of their portfolio if the terms of the non-disclosure agreement have expired. (Intellectual
property, n.d.)

Government Sponsored Projects on Campus

Government sponsored projects on campuses fall under the Bayh-Dole Act. As shown in
Stanford v. Roche, the Bayh-Dole Act supports faculty inventors while giving the option to
universities to obtain the rights to inventions or patents after if the inventor passes on those first
rights.
Conclusion

Currently there are no consistent policies regarding universities and intellectual property. While many universities have had in place policies regarding faculty ownership of intellectual property, many universities do not have updated policies regarding student ownership. As the lines between university sponsored research and industry sponsored research, university policy will need to be clear regarding faculty, staff, and student intellectual property ownership. It will need to be updated to reflect advancements in digital product, entrepreneurship, and increasing industry presence on campus.
References


Board of Trustees of the Leland Stanford Junior University v. Roche Molecular Systems, Inc., 09-1159 (Supreme Court of the United States June 6, 2011).


Intellectual property in student developed inventions FAQ. (n.d.). Retrieved from University of Missouri System: https://www.umsystem.edu/ums/red/oipa/studentip-faqs


IPG01 Faculty guidance on student intellectual property rights (formerly RAG12). (2015, November 19). Retrieved from Penn State Policies: https://policy.psu.edu/policies/ipg01


Sigurdson, C. (2013, February 8). Purdue opens up intellectual property rules for students. Retrieved from Purdue Today:
https://www.purdue.edu/newsroom/releases/2013/Q1/purdue-opens-up-intellectual-property-rules-for-students.html


The Regents of the University of California v. Chen et al, 3:16-cv-07396 (California Northern District Court December 29, 2016).

University of Pittsburgh v. David Townsend; Ronald Nutt; CTI Molecular Imaging, Inc.; CTI Pet Systems, Inc., No. 07-6062. (United States Court of Appeals, Sixth Circuit September 9, 2008).


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