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Student-Created IP: Improving Policies, Effective Practices and Removing Pain Points

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Student-Created IP: Improving Policies, Effective Practices and Removing Pain Points

Moderator:

Phil Weilerstein, *VentureWell*

Speakers:

Nathalie Duval-Couetil, *Purdue University*

Ron Huss, *Penn State University*

Marc Sedam, *University of New Hampshire*

October 14, 2015



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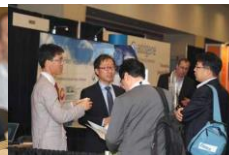
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STUDENT-CREATED IP: IMPROVING POLICIES, EFFECTIVE PRACTICES AND REMOVING PAIN POINTS

AUTM WEBINAR
OCTOBER 14, 2015

The need:

- Students—particularly undergraduates – are increasingly involved in the creation of intellectual property with real economic and social value
- Many members of university communities—undergraduate students especially—are unaware, misinformed, or otherwise confused about how their institution’s IP policies affect their rights
- *Observation* - student IP issues are **inhibiting** I&E culture at many institutions



The solution:

AUTM Technology Transfer Practice Manual



Volume 2

Page 1

Managing Student Intellectual Property Issues at Institutions of Higher Education: An AUTM Primer

Abigail Barrow, PhD; La Royce Batchelor; Alex Breger, JD; Nathalie Duval-Couetil, PhD, MBA; Latanya Scott; Jeffrey Skinner, PhD, MBA, RTTP; Phyl Speser, JD, PhD, RTTP; and Phil Weilerstein



Agenda

- 1) Introductions
- 2) Understanding the Context
- 3) AUTM Student IP Policy Chapter Overview
- 4) Panelist perspectives & Discussion



Presenters



Phil Weilerstein
President and CEO
VentureWell



Nathalie Duval Couetil
Associate Professor, Technology, Leadership, and
Innovation, Director, Certificate in Entrepreneurship and
Innovation Program, Associate Director, Burton D.
Morgan Center for Entrepreneurship
Purdue University

Panelists



Marc Sedam
Associate Vice Provost of Innovation and
New Ventures, Managing Director
UNHInnovation
University of New Hampshire



Ronald J. Huss
Associate Vice President for Research and
Technology Transfer and Director, Office of
Technology Management
Penn State University



ENCOURAGING EMERGING INVENTORS: A NEW LOOK AT INTELLECTUAL PROPERTY AND STUDENTS

Context

Trends

- Generation of students aware of the financial and personal benefits of entrepreneurship
- Need to prepare students for a new economy where smaller companies are increasingly a source of jobs
- Accreditation driving integration of more “real world” experiences into educational programs
- Creating more entrepreneurial universities able to generate revenues by engaging with the private sector

Courses

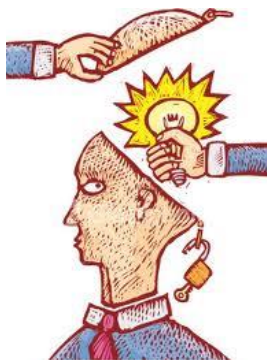
Experiential
learning

Commercialization

Incubators and
tech parks

Our Observations

- When IP policy is perceived by students to be in favor of the institution, it can inhibit innovation and prevent them from obtaining assistance that could help advance their innovations or ventures
- Need to clearly articulate policy to students and faculty, which can be challenging
- Mishandling can have negative consequences



Other Issues

- Some institutions lack a specific policy for undergraduates
- Technology Transfer Offices (TTOs) “turn a blind eye” Duval-Couetil, Pilcher, Weilerstein & Gotch, 2014
- Lack of an accurate understanding of IP policy among students and faculty Silvernagel, Schultz, Moser, and Marie (2009)
- Students do research for credit not money, so are not covered under “workplace doctrine” Nordheden, and Hoefflich (1999)
- Definition of “use of significant university resources” varies by institution

Where Undergrad IP is an Issue

Entrepreneurship courses or related experiential learning programs (e.g. business and product development competitions)

- Does the university assert any ownership over products developed as part of a class assignment?
- How does an institution distinguish what a student develops as part of his or her academic program as opposed to what is developed in his/her dorm room?

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Where Undergrad IP is an Issue

Non-industry sponsored engineering, science, or technology-related capstone product development courses

- Does the university assert any ownership over products developed as part of a class assignment?
- How to measure the contributions of team members and/or those of faculty?
- What agreements are needed?

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Where Undergrad IP is an Issue

Industry-sponsored engineering, science, or tech-related capstone product development courses.

- What agreements are needed?
- Do students need to be offered equivalent curricular alternatives so that they don't have to work on creating IP for a third party?
- How to balance the interests of all parties?

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Where Undergrad IP is an Issue

Undergraduate research

- Do students need to sign special agreements?
Sam Pacific, Jim Central, Timon Eszen
- Is IP ownership affected by whether a student does research for money or for credit?

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Survey of Tech Transfer Directors

RESEARCH QUESTIONS

- What is the extent and nature of undergraduate involvement with technology transfer offices?
- What are universities' specific policies related to undergraduate IP?
- What are general (unofficial) attitudes and practices related to IP involving undergraduate students?

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Undergraduate IP activity was growing at approximately half of the universities surveyed

Factors driving growth:	Agree or Strongly agree
Entrepreneurship or product innovation-related competitions	91%
A general increased emphasis on entrepreneurship and technology commercialization on your campus	94%
Engineering design/product development courses	86%
Entrepreneurship courses offered on campus	84%
Entrepreneurship-related clubs or student organizations	84%
Seminars or workshops related to entrepreneurship and intellectual property (not semester-long)	78%
More students pursuing entrepreneurial careers	78%
Undergraduate participation in research	66%
University intellectual-property success stories	56%

Specific policies related to undergraduates

- 33% had specific policy for IP developed by undergraduates
- 25% of universities instituted programmatic changes to accommodate undergraduates
 - 63% had not, 13% in progress
- 75% considered “use of significant university resources” when assigning IP ownership to undergraduates

Informal TTO Attitudes Toward Undergrad IP

Attitudes	Agree or Strongly agree
We should be more involved in working with undergraduates	59%
We don't have the resources to meet the needs of undergraduates	50%
Undergraduate IP yields very little return on investment of time or money	62%
Undergraduate students are primarily generating IP that is not within the scope of the university IP policy	72%

Duval-Couetil, N., Pilcher, J., Weilerstein, P. & Gotch, C. (2014, February). Undergraduate involvement in intellectual property protection at universities: Views from technology transfer professionals. *International Journal of Engineering Education*, 30(1), 1-12.

Study of Faculty Perceptions of Student IP

Unclear Policy

- "We have an unwritten policy, undergraduate students own their IP. We will provide guidance and assistance in helping them to protect their IP, but since this is an unwritten policy, it raises concerns each time."

Lack of information

- "All the information given to students is BIASED toward the universities best interest. There is very little to no best practice knowledge out there being supplied to students about how to not have to deal with IP licensing offices which will slow down their commercialization and or cost them dearly as they launch their business."

Duval-Couetil, N. & Yi, S., in progress

Study of Faculty Perceptions of Student IP

Unclear ownership

- "We are able to apply our policies to situations internal to the university. [Managing industry expectations around capstone projects and undergraduate research is much more challenging](#), and I don't believe we manage this consistently yet."
- "[Faculty involvement, which is usually ad hoc, goes unrecognized and, in most cases](#), the ideas that overcome the critical issues (i.e., the novelty of the IP) which is the actual patentable invention goes to the students with no credit to the faculty "advisor". This happened to myself, in point of fact. Thus [I no longer involve myself with such competitions as I am not in the business of giving away my IP for free.](#)"

Attitudes

- "Undergraduates think the whole university is put here for them to use for their pleasure. While faculty has minimal say over IP issues in contracting, consulting, faculty-owned businesses, etc., [people want to throw state resources at undergraduates to exploit the same facilities and resources that faculty are prohibited from exploiting for their gain.](#)"

Duval-Couetil, N. & Yi, S., in progress

Conclusions

- Case studies and best practices must be developed
- Improve communication of policies and practices to improve TTOs ability to intervene on undergrad IP activities that have greater likelihood of returns



Student IP Primer & Policy Manual

- Joint initiative between VentureWell (formerly NCIIA) and the Association of University Technology Managers (AUTM)
- Co-researched and authored by task force consisting of faculty members, administrators, tech transfer officers, students, and other professionals in the field
- Looked at campus testimonials, survey data, I&E outcomes, and IP production



Why did AUTM and VentureWell do this?

- Students—particularly undergraduates—becoming increasingly involved in the creation of intellectual property with real economic and social value
- Many members of university communities—undergraduate students especially—are unaware, misinformed, or otherwise confused about how their institution’s IP policies affect their rights
 - Even tech transfer practitioners reporting confusion re: how to interpret student activities under their IP policy
- *Observation* - student IP issues are **inhibiting** I&E culture at many institutions



Existing Campus IP Policies

- Many, if not most, university IP policies geared towards highly-structured, sponsored research environment
- These policies frequently address student IP indirectly in one of two ways:
 - Claim IP rights from employees and treat **student-employees** the same as other institutional employees
 - Claim IP rights resulting from **significant use** of university resources



AUTM Policy Manual Chapter

- Not prescriptive
- Highlights issues to be considered
- Emphasized need for education of students, faculty and administration
- Developed set of case studies to:
 - Showcase how students are involved in IP development,
 - Highlight decision points to determine ownership
 - Highlight how policies may be interpreted



Addresses 7 Key Issues:

1. Institutional Objectives
2. Significant-Use Criteria
3. Role of Existing Research Programs
4. Contractual Enforceability
5. Former Students and Alumni Relations
6. Administrative Overhead
7. General Strictness: Balancing Research Quality Versus Quantity

AUTM Policy Manual Chapter, Barrow et al., Volume 2, 2015

1. Institutional Objectives

Competing Priorities

1. Optimizing revenue vs Developing a supportive entrepreneurial environment
2. Need to invest in resources to support IP ownership if institution claims it



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2. Significant-Use Criteria

1. Economic rather than intellectual input e.g. use of facilities, support staff and consumables
2. Hard to define and analyze – what is normally available to students and what isn't



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3. Role of Existing Research Programs

1. Does the technology build on existing research and has the student been given access to proprietary information
2. Will the underlying technology be licensed to other third parties – or was it developed under a sponsored research project
3. Will the student have Freedom to Operate if they want to commercialize the technology



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4. Contractual Enforceability

1. When are students employees, and when are they students?
2. Is the student aware of these clauses when they become an employee?
3. If included as a condition of enrollment is the student aware of the policy and the implications of signing the document?



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5. Former Students and Alumni Relations

1. Need to ensure student is aware of policy when they are at the institution
2. What happens when they leave?
3. If a student does well with an invention will the institution gain more from a grateful alum than through a royalty stream on a license?
4. What do you want to read on the front of the local paper?



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6. Administrative Overhead

1. Who is going to do the work and fund the patent expenses if ownership is asserted by the institution?



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7. General Strictness: Balancing Research Quality Versus Quantity

1. Need to preserve the quality and depth of institutional research
2. Need to maintain open and supportive relationships between faculty and students



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Special Cases

1. Pre-existing student IP
2. Capstone design classes
3. Service learning projects and independent studies
4. Makerspaces



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Outreach & Implementation

1. Make the policy available
 - Websites, bulletin boards, publications
2. Making sure it gets read
 - By faculty and students in relevant classes, by administrators and in student clubs
 - Required reading in orientation booklets, in class handouts, in consent forms



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Case studies

1. Four cases – differing complexities
2. Analysis of how policy may be interpreted and what considerations go in the interpretation
3. What the TTO might or might not want to do
4. What the administration might do



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ENCOURAGING EMERGING INVENTORS: A NEW LOOK AT INTELLECTUAL PROPERTY AND STUDENTS

Panel Discussion

Panelists



Marc Sedam
Associate Vice Provost of Innovation and
New Ventures, Managing Director
UNHInnovation
University of New Hampshire



Ronald J. Huss
Associate Vice President for Research and
Technology Transfer and Director, Office of
Technology Management
Penn State University

QUESTIONS?



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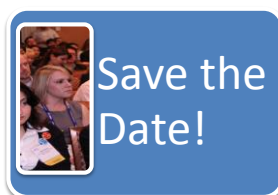
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