



Tech  
Law  
Garden

# Intellectual Property Overview

(for university engineering graduates entering the U.S. workforce)

April 3, 2018

University of Alaska, Fairbanks

# Congratulations!



# Tennille Christensen, Esq. - History

- BS Bioengineering (Mechanics and Materials)
- Analyst/engineer for a few years at several start-ups biotech/software
- US patent agent (Note re: alternate job path)
- Too nerdy about open source software, eventually went to law school, focused on IP law and F/OSS
- Large law firms 2003-2010, my own law firm since 2010
- Work with independent inventors, creators, and start-ups
- Typical client is a technology startup that has raised money (seed/incubator/venture capital) 1 – 250 employees; 10-15% individuals or small bootstrapped companies
- Advice, counseling, negotiation, contract drafting – all technologies
- I don't litigate – My job is to minimize my technology clients' chance of being sued.

You never know where your engineering degree will end up being useful.

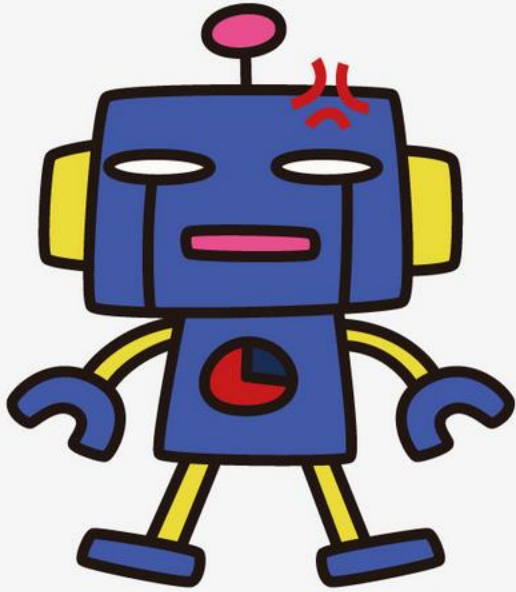
# Intellectual Property (IP) Law Is Based on REAL Property Law



- Property rights allow you to exclude people from accessing your property.
- Property rights allow you to condition access to your property (No shirt, No shoes, No service; Paying Customers Only)

# 4 Main Types of Intellectual Property

- Patents – inventions you disclose to the public in exchange for a limited term monopoly.
- Trade Secrets – commercially valuable information you keep secret.
- Copyrights – \*expressions\* of ideas fixed in a form that can be reproduced.
- Trademarks – words or logos designating the origin or maker of goods/services.



# MegaBot

## Intellectual Property Examples

Intellectual Property	Description of the embodiment of the protected IP rights
Patent (Utility)	<u>Mechanical design</u> of a specific combination of parts (gear/teeth/fastener/lever) that solves a problem
Copyright	<u>Software</u> running in a computerized machine to manage the control loop timing based on variables that are measured continuously
Trade Secret	<u>Secret</u> ratio of certain variables that usually result in better performance
Trademark	<u>Logo</u> up above, placed on the machine and marketing materials.

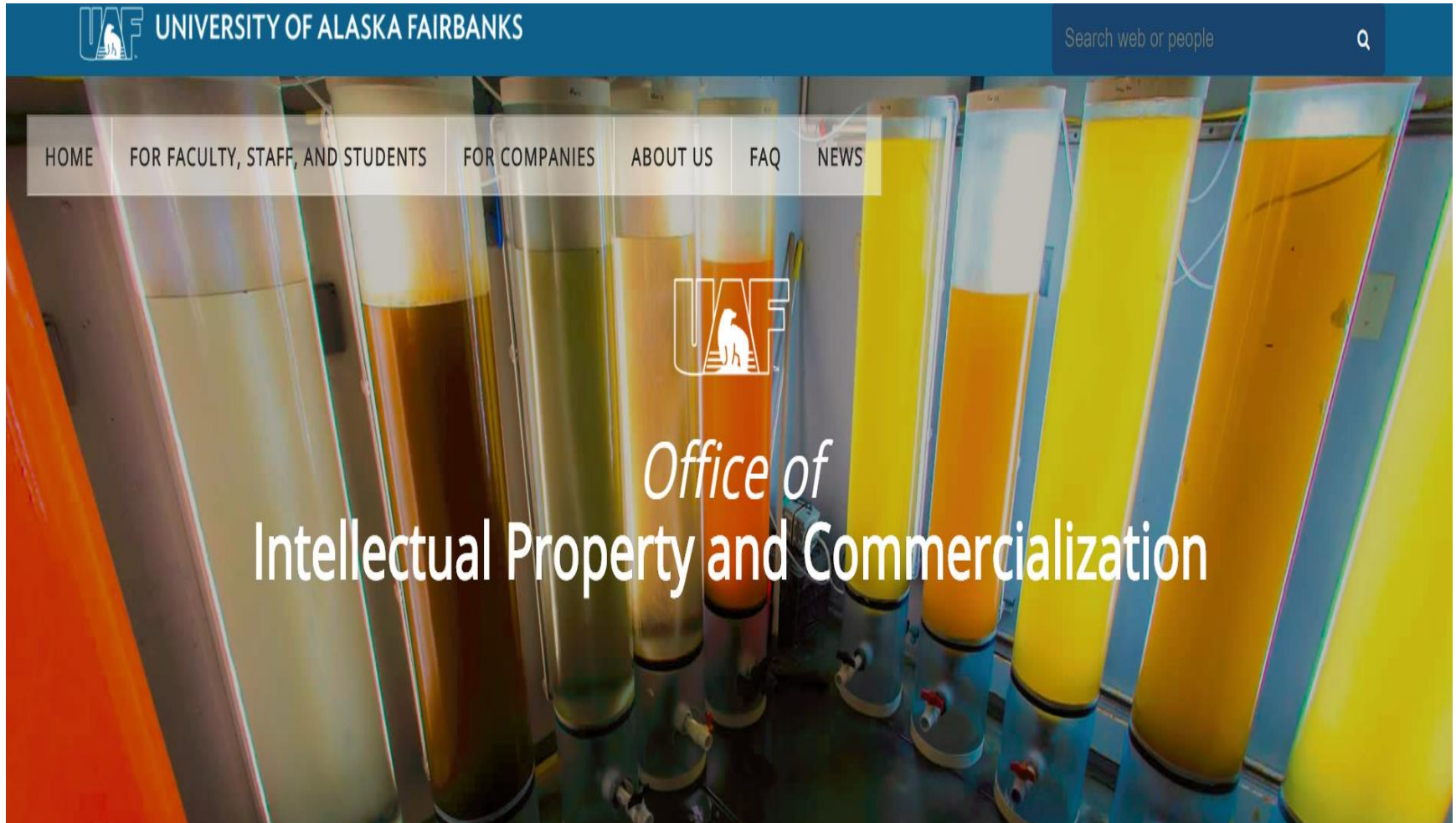
# Most Businesses built on IP involve IP licenses or IP transfers (sales)



# Who Owns The IP You Create?

- No job/IP contract? The creator owns it all (unless built on someone else's IP).
- Student? University IP policy should specify IP ownership of IP created using university resources or as part of coursework.
- Employee? Employer owns all copyrights created while working. All other IP is governed by employment contract or IP policy.
- Independent Contractor? All IP is governed by independent contractor agreement.
- Independent Inventions made while employed or under other contract? State law plus the IP rights in your contracts.

# How About An Example?



# FAQ

## For Inventors

### How do you find industry partners for commercialization?

70% of industry partners are known to the inventor/author (that's you!). Your connections are invaluable. You know the market and the players in it. You might have even developed the innovation by working with industry representatives.

### What are my rights and obligations?

Student and staff rights and obligations are defined in Board of Regents policy and regulation 10.07.050, available [here](#). Faculty rights and obligations are defined in Article 14 of the collective bargaining agreement, available [here](#). We're happy to talk through the details with you.

# Have You Heard of Invent Alaska?



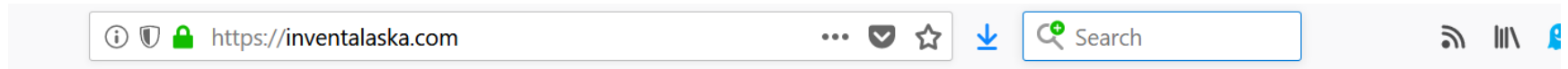
**REGENTS' POLICY**  
**PART X – ACADEMIC POLICY**  
**Chapter 10.07 - Research, Scholarship and Creative Activity**

**P10.07.050. Inventions, Patents, Copyrights, Trademarks and Other Intellectual Properties.**

The president will promulgate university regulation to encourage and support intellectual activity by employees and students, and will detail rights and obligations concerning inventions, patents, copyrights, trademarks and other intellectual properties developed as a result of university support.

(06-20-97)

# The University Owns Innovations Developed Using University Resources



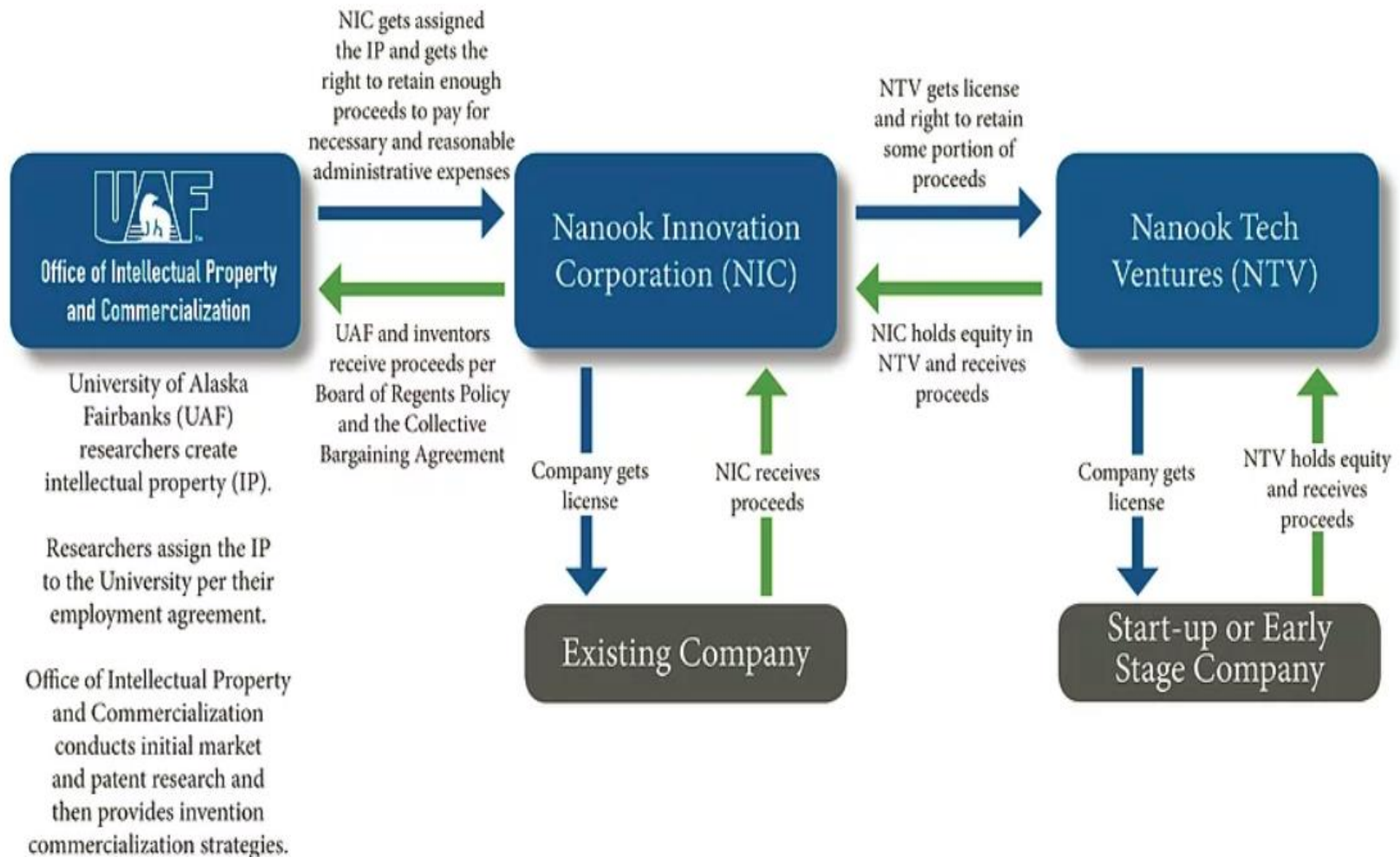
Invent Alaska Competition Open through April 27th, 2018

## Why else should I enter the competition?

The university wants to help you protect and commercialize your innovation. While the university owns innovations developed using university resources including classwork, innovators in return receive substantial backing in the form of resources and expertise.

Innovators also receive the first \$10,000 and 50% thereafter of net proceeds received by the university from commercialization of the innovation.

# UAF Technology Licensing



# What if a UAF Employee Wants To Own Their Own Work Outside of UAF?



# University of Alaska Fairbanks Employees

## **COLLECTIVE BARGAINING AGREEMENT**

between the

**University of Alaska**

and

**United Academics – AAUP/AFT**

January 01, 2017 – December 31, 2019

# UAF Collective Bargaining Agreement

- g. "Independent efforts" are works or inventions made in the course of independent efforts of the UNAC member. The ideas for these works or inventions came from the UNAC member; the work or invention was not University supported as defined herein.

## 14.3 Works

- a. Ownership, Rights, and Responsibilities

- 1. Independent Efforts

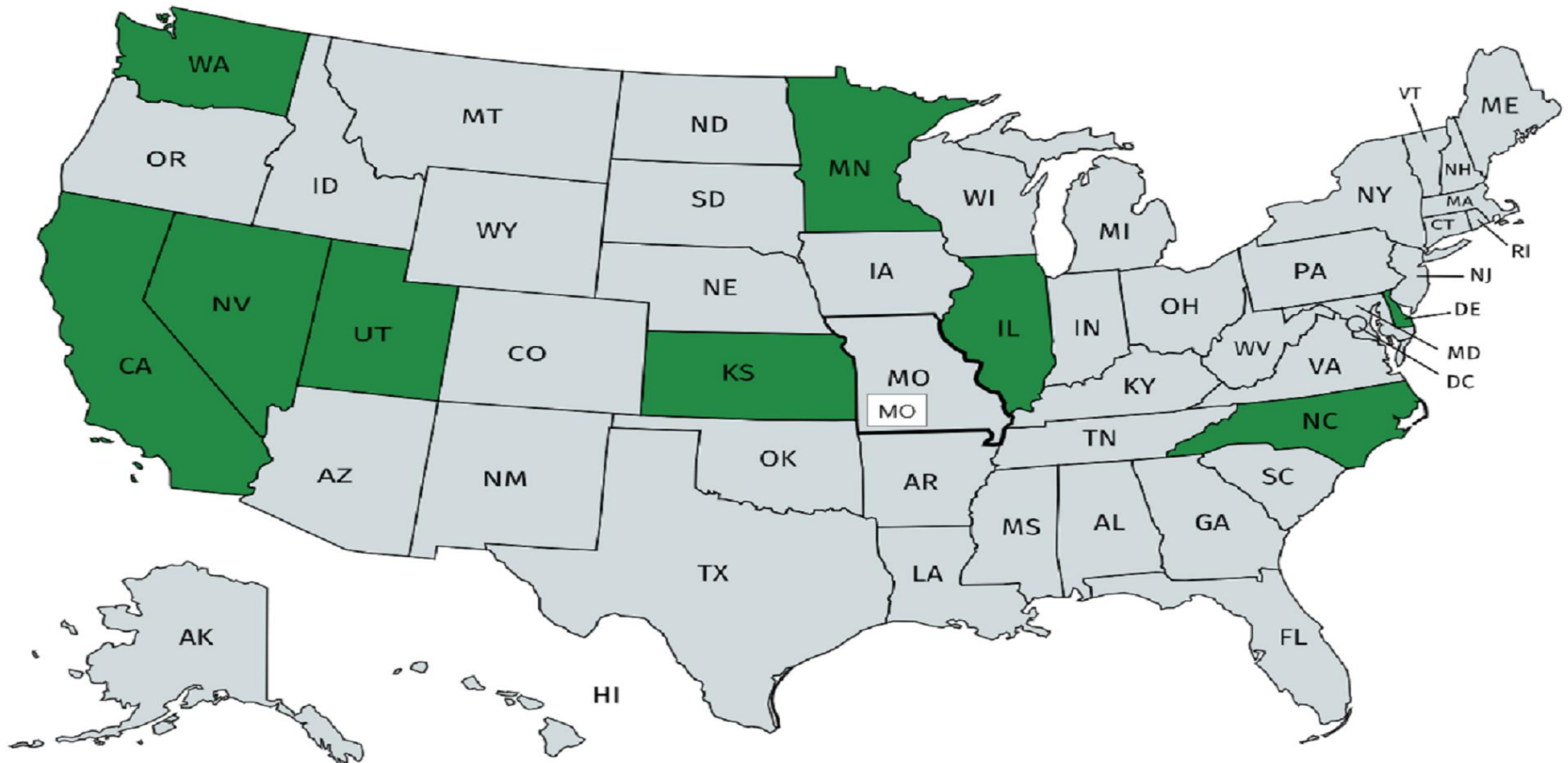
A work made in the course of independent efforts is the property of the UNAC member, who has the right to determine the disposition of such work and net proceeds derived from such work. UNAC members are solely responsible for works created through independent efforts. Independent efforts remain subject to the requirements and prohibitions of the Alaska Executive Branch Ethics Act.

# Typical IP provisions in US Employment Agreements

1. All the IP you create in the course of performing your job or using your employer's resources is owned by your employer.
2. You are obligated to protect confidential information (not share it with third parties or use it for any purpose not authorized by the company).
3. Independent Inventions and post-termination competition are the areas with the most variety
4. You may be obligated to disclose any independent inventions/creations to your employer.
5. Your employer may try to claim ownership to independent inventions/creations.

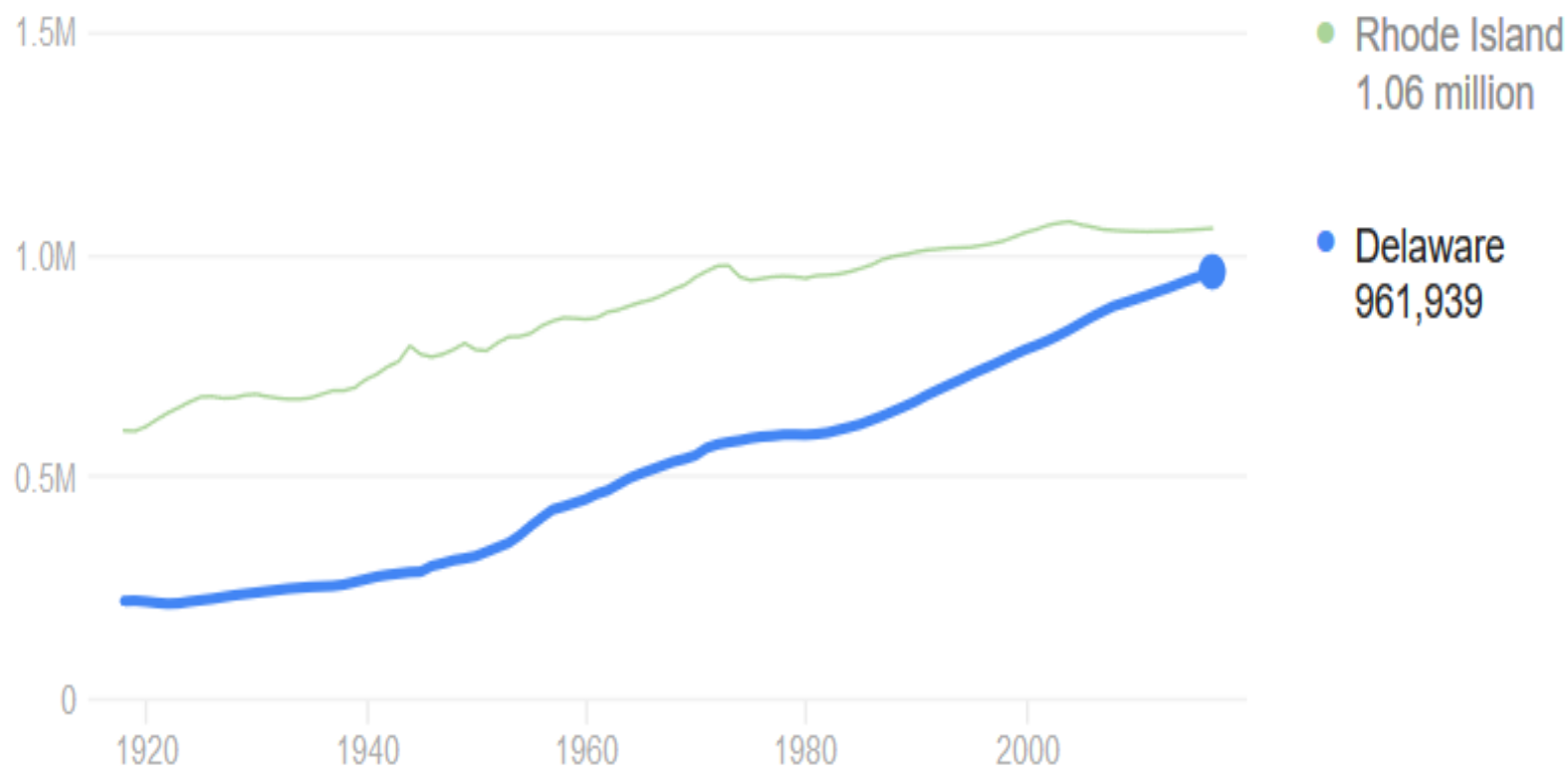
# US Inventor Rights Statutes

As of February 2017, these states all had statutes limiting the IP employers could demand as a condition of employment:



## Delaware / Population

961,939 (2017)



# DELAWARE DIVISION OF CORPORATIONS

## 2016 ANNUAL REPORT

Jeffrey W. Bullock, Secretary of State



- More than 1.2 million legal entities are incorporated in Delaware
- Over 189,000 entities were formed under Delaware's corporate and alternative entities laws
- 66.8% of all Fortune 500 companies are incorporated in Delaware
- 81% of U.S. based Initial Public Offerings in 2016 chose Delaware as their corporate home
- Total General Fund Revenue had 12% growth for FY 2016

## 2 DE Code § 805 (2014 through 146th Gen Ass)



Any provision in an employment agreement which provides that the employee shall assign or offer to assign any of the employee's rights in an invention to the employee's employer shall not apply to an invention that the employee developed entirely on the employee's own time without using the employer's equipment, supplies, facility or trade secret information, except for those inventions that:

- (1) Relate to the employer's business or actual or demonstrably anticipated research or development; or
- (2) Result from any work performed by the employee for the employer.

To the extent a provision in an employment agreement purports to apply to the type of invention described, it is against the public policy of this State and is unenforceable. An employer may not require a provision of an employment agreement made unenforceable under this section as a condition of employment or continued employment.

# You Own Your Own Invention – What About Incubators and Competitions?

- Read the application terms and conditions (contract)
- Read the IP policy
- Ensure that you understand what you are giving up in return for an opportunity to win an award of cash, recognition, or something else.



# Arctic Innovation Competition

Alaska's Original Idea Competition

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## Intellectual Property Protection

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**How your Intellectual Properties (IPs) are protected when you enter the AIC:**

- All people involved in screening ideas sign a Non-Disclosure Agreement.
- Ideas not selected for the final competition are kept confidential.
- You retain ownership of your idea, whether or not you win a prize.
- More information regarding patents can be found at the [US Patent and Trademark Office website](#).

# Remember Invent Alaska?

Invent Alaska Competition Open through April 27th, 2018

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## **What can I win?**


The Grand Prize is \$7,500 in cash and assistance to license, patent, and commercialize your innovation.

Separate categories for: (1) Student, (2) Greatest Commercial Potential, and (3) Best Early Stage Idea, (4) Best Entry from UA Southeast

## **I have more questions. Who can I talk to?**

OIPC staff will be happy to talk to you. Call 474-2605 or email [uaf-oipc@alaska.edu](mailto:uaf-oipc@alaska.edu).

# STARTUPS

 [www.launchalaska.com/apply/](http://www.launchalaska.com/apply/)

## WHAT WE PROVIDE

- \$75k in funding (Customer Development Track)
- Up to \$1 Million in non-dilutive funding (Demonstration Track)
- Mentorship
- Technical assistance
- Introductions to customers, investors, corporates, and other strategic partners
- Co-working space

We're looking for innovative firms who are serious about scaling up. Firms that graduate from an accelerator have a higher rate of survival, and are more likely to receive additional investment—about 30% of firms graduating from a GAN-member accelerator receive second round investment, at an average of \$1.9m. In addition to this possibility, you'll receive mentoring and relationships with corporations, utilities, and experienced entrepreneurs.

Learn more about our program in our [Applicant Packet](#).



Shhhhhh!

# NDA's

Non-Disclosure Agreements (Confidentiality Agreements, Confidential Disclosure Agreements) are important.

Major difference between an academic and professional engineering environment is the default assumption that things *\*shouldn't\** be openly shared or used without explicit permission.

Unless instructed otherwise, you should assume that your employer's confidential information, as well as its customers' and partners' confidential information should be kept secret. Part of your employment contract is a promise that you won't misuse or share any trade secrets or other confidential information.

# How are Independent Contractors Different?

- Employment test for individuals differs in each state.
- Depends on the leverage of the IC. Design houses enter contracts with their customers as independent contractors.
- The tasks to be performed and the deliverables to be provided are much more specifically defined in an IC agreement than with an employee.
- The IP created in the course of creating the deliverables may be assigned to the hiring party, or kept entirely by the IC, or licensed to the hiring party, but kept by the IC for potential use with future clients.
- A confidentiality clause is typically included and 3<sup>rd</sup> party NDAs may be implicated as well.

# So Where Are We Now?



# Top 5 TakeAways At This Point

1. You will be asked to sign contracts when you start new jobs. Read them. Understand them.
2. Advocate for rights to Independent Inventions if that is important to you.
3. IP is the basis of how business works around technology (and likely somehow tied to how the company that pays you makes money).
4. Engineering is a necessary specialized piece of a more complex system (law, business, finance, etc.) – make an effort to understand how the whole system functions.
5. Thinking like an engineer is a skill that applies in \*all\* systems. Never stop asking yourself if the result you've prepared passes the applicable sanity “does this make any sense?” and pragmatic “does this have any chance of working?” tests

# 4 Main Types of Intellectual Property

- Patents – inventions you disclose to the public in exchange for a limited term monopoly.
- Trade Secrets – commercially valuable information you keep secret.
- Copyrights – \*expressions\* of ideas fixed in a form that can be reproduced.
- Trademarks – words or logos designating the origin or maker of goods/services.

# Patents – A Property Right

- Patents are based in property law.
- Just like owning real property allows you to put up a fence and prohibit others from accessing your property, a patent allows the patent holder to prohibit \*anyone\* from practicing the patent claims.
- Patents are granted by countries
- Written application/issued patent contains description of the invention, drawings, and claims.
- Employer or University will typically have the right to own the patented technology you invent in the course of your employment or University supported research.



US009926906B2

**(12) United States Patent  
Mansberger****(10) Patent No.: US 9,926,906 B2  
(45) Date of Patent: Mar. 27, 2018****(54) THERMODYNAMIC WIND TURBINE****(71) Applicant: Larry Lee Mansberger, Fort Worth, TX (US)****(72) Inventor: Larry Lee Mansberger, Fort Worth, TX (US)****(73) Assignee: Mansberger Aircraft Inc., Fort Worth, TX (US)****(\*) Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 54 days.**(21) Appl. No.: 15/143,041****(22) Filed: Apr. 29, 2016****(65) Prior Publication Data**

US 2017/0314529 A1 Nov. 2, 2017

**(51) Int. Cl.**  
**F03D 1/06** (2006.01)  
**F03D 9/00** (2016.01)  
**F03D 1/04** (2006.01)**(52) U.S. Cl.**  
CPC ..... **F03D 1/0625** (2013.01); **F03D 9/002** (2013.01); **F03D 1/04** (2013.01); **F05B 2220/30** (2013.01); **F05B 2240/13** (2013.01); **F05B 2240/221** (2013.01); **Y02E 10/721** (2013.01)**(58) Field of Classification Search**  
CPC ..... **F03D 1/0625**; **F03D 9/002**; **F03D 1/04**; **F05B 2240/221**; **F05B 2220/30**; **F05B 2240/13**; **Y02E 10/721**  
See application file for complete search history.**(56) References Cited****U.S. PATENT DOCUMENTS**4,075,500 A 2/1978 Oman et al.  
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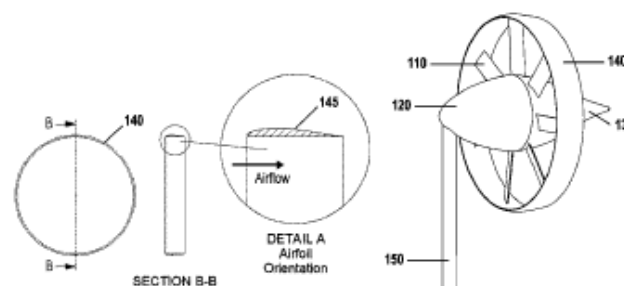
**OTHER PUBLICATIONS**Mansberger, Larry L., "A Fundamental Revision of Wind Turbine Design Theory Mansberger Blade Element Theory: M-BET", 2015, <http://mansbergeraircraft.com/A%20Fundamental%20Revision%20of%20Wind%20Turbine%20Design%20Theory.pdf>.

(Continued)

Primary Examiner — Michael C Zaroli

**(57) ABSTRACT**

The invention discloses versions of a horizontal axis wind turbine and methodologies for the design of wind turbines, which are capable of extracting both kinetic and thermal energy from the wind. The wind turbines disclosed use a large diameter forward inlet fairing to accelerate the airflow to the more effective outer radii of the turbine rotor where the airflow is constrained by an airfoil-shaped flow control ring. This serves to prevent rotor tip losses, to inhibit wake expansion, and to accelerate the airflow through the turbine. A similarly large diameter aft pressure recovery fairing promotes rotation and contraction of the wake downstream of the turbine. Further methodologies for optimization and an algorithm for detail design are disclosed.

**4 Claims, 7 Drawing Sheets**

# 35 USC §271

## Patent Infringement

Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

In the case of software, a license, offer to license, or distribution of software that infringes a patent while it is running is held to be an “offer to sell”

# Who Holds the Patent Rights?

- It is common to hear named inventors listed on patents say things like, “I have 10 patents” or “I have a patent on that”.
- The patent holder is **\*ONLY\*** the inventor if there was not a patent assignment.
- In technology companies and at Universities, it is usually a condition of employment that inventors **\*MUST\*** assign their patents to their employers if the patent is related to the business of the employer.
- So, even if you are a named inventor on a patent, the patent holder is most likely your employer at the time you created the invention, not you.

# Patent Infringement is Strict Liability

- Intent does not matter (criminal examples: statutory rape, possession crimes, failure to pay taxes)
- Patent infringement is a strict-liability offense because the defendant's state of mind is irrelevant to the analysis, which involves only comparing the claims and the accused product.
- An infringer's state of mind is only used when determining the remedies.
- Independent development is not a defense
- Not knowing of the existence of the infringed patent is not a defense

# Trade Secrets – Protection by Secrecy

- Classic examples – coca cola formula; discounts and pricing given to key customers; unpatented inventions kept secret.
- Must have value that allows you to have some sort of commercial advantage.
- Non-disclosure Agreements (NDA, CDA, etc.) required if you disclose to third parties and still want to keep it a secret.
- Misappropriation of Trade Secrets is the legal cause of action.

# Copyright

- In the US and under most countries' laws, copyright vests in the creator of a work of original authorship immediately upon creation of the work.
- Under the work-for-hire doctrine, copyrighted works created by employees doing paid work immediately vest copyright in the employer.
- Copyright does not protect \*Ideas\*
- Copyright protects specific expressions of ideas
- An Example: A poem about a particular topic (e.g. Dickinson, Shelly, Neruda, Bronte, etc. on Death)

# Practically Everything Ever Written (or produced) By Anyone is Copyrighted

No application or governmental registration required – automatic protection

Blog posts

Emails

User Manuals

Videos/Films

Music

Software (Video games)

Sculptures/Photographs

TAKE HOME: Don't use stuff written or produced by others without their written permission (permission = email, FOSS/commercial license)

# Exclusive Copyright Rights

17 USC § 106 (similar in all 168 Berne countries)

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
- (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and
- (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

# FAIR USE

- It's an area of much litigation right now. It's a defense, which means it's a fight, it's not automatic or easy to rely upon.
- the purpose and character of your use (education, political commentary, news = likely; commercial use = less likely)
- the nature of the copyrighted work.
- the amount and substantiality of the portion taken, and.
- the effect of the use upon the potential market.

# We're Back to Fair Use Again



# What is a Trademark?

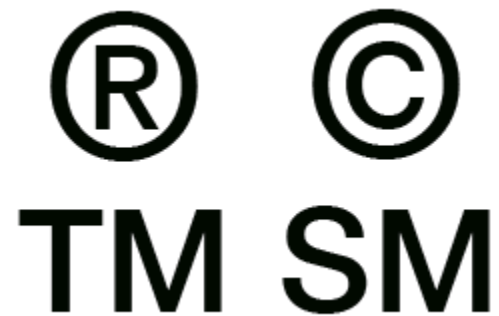
An intellectual property right used to protect words

- Names (slogans)
- Symbols (logos)
- Sounds
- Colors

that distinguish goods (and/or services) from those manufactured or sold by others and to indicate the source of the goods (or services).

- Common Law rights <sup>™</sup> or Registered rights <sup>®</sup>

# Know Your Symbols



# Final Take Home Points

Advance congrats on the engineering degree!

Keep up the good work and never stop being a student of the world.

Think Like An Engineer!

When you get a job offer, read the contract!

When entering any formal relationship (online terms and conditions, application policies, etc.) and make sure you understand and agree to them before you sign (clicking “I Agree” or “Submit” is signing).

# More Final Take Home Points

If creating inventions you own is important to you, try to get language in your contracts that looks like the Delaware Inventor Rights Statute (unless your state has its own statute)

## Respect Non-Disclosure Agreements

Unless you get explicit permission from your employer (or client):

- Don't take work you do from one employer/client to another one (or use it to start your own business)
- Don't plagiarize anything
- Don't email theories about third party intellectual property. (A note about litigation and discovery – every work email you write may be read by lawyers some day.)

Stay in touch with your classmates!



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Questions?

Please feel free to reach out to me directly at  
[tennille\[AT\]techlawgarden.com](mailto:tennille@techlawgarden.com)