

10/07: Intellectual Property

The Capstone Experience

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*From Students...
...to Professionals*

Caveat Emptor

- Opinions Expressed
 - My Own
 - Do Not Represent MSU
- Not an Attorney
- No Warranty

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Lots of Variables

- Who Your...
 - ...Employer Is
 - ...Customers Are
- Very Different Rules/Laws/Policies
 - Industry
 - Privately Held
 - Publically Held
 - Government
 - Government Contractor
 - Educational Institution
 - Etc...



Intellectual Property

- “Ideas” Worth Money
 - Must be able to “fix in a tangible medium”.
 - How to Make Something
 - How to Do Something
 - Work of Art (Music, Movie, Photo, Painting, Novel, Etc.)
 - Pharmaceutical
 - Process
 - Algorithm
 - Etc...
- Must Protect
- Types of Protection
 - Copyrights
 - Patents
 - Trademarks
 - Trade Secrets
 - Etc..
- Check with an IP attorney.



Patent vs Copyright

- Patent
 - Own “Idea” For 20 Years
 - Protect Via Patent Process
 - Harder to Obtain
 - Easier (but not Easy) to Enforce Protection
- Copyright
 - Own “Text” For Life of Author + 70 Years
 - Protect Via Copyright
 - Easy to Obtain
 - Automatically
 - “© 2022 by Wayne Dyksen. All Rights Reserved.”
 - By Formally Registering
 - Harder to Enforce Protection

Check with an IP attorney.

What’s the motivation for granting patents and copyrights?

- Happy Birthday Song
Patty and Mildred Hill, 1893
- Google Books
- Software



Patent vs Trade Secret

- Patent
 - Own “Idea” For 20 Years
 - Protect Via Patent Process
 - Easier to Enforce Protection
- Trade Secret
 - Own “Idea” Forever
 - Protect Via Non-Disclosure and Non-Compete
 - No Enforcement Protection if Secret Disclosed

Interesting Examples of Trade Secrets

- Coke Formula
- Houdini’s Escapes



IP Enforcement

- Laws
 - US State & National
 - Non-US National
 - International
- Big Problem
 - Counterfeiting Rampant
 - Software
 - Drugs
 - Music, Movies, Etc.
 - Clothing & Accessories
 - Etc...
 - Stealing Rampant
 - Enforcement Non-Existent in Some Countries
 - Software Alone Big \$\$



Aside: Patent Trolls

- AKA Patent Hoarders
- Shell Companies
- Buy “Unused” Patents
- File Frivolous Lawsuits
 - Claim Defendant Violating Their Patent
 - Hoping for Settlement
 - Something Like Blackmail
- Google “patent troll”

Non-Disclosure Agreement (NDA)

- You agree not to misuse company information.
 - Trade Secrets
 - Copyrights
 - Confidential Information
 - Product Plans
 - Software
 - Schematics
 - Etc...
 - Etc..
- Misuse Includes...
 - ...Disclosing
 - ...Selling
 - ...Using for Your Startup Company
 - ...Using at Next Employer
 - Etc...



Intellectual Property Agreement (IPA)

- You agree to assign all IP created to your employer.
 - Copyrights
 - Patents
 - Trade Secrets
 - Etc...
- Agreements Vary in Scope
 - Relationship of IP to Your Job
 - Time
- What happens if you...
 - ...create patented IP that earns your employer \$1B?
 - ...leave your employer to patent an idea on your own?



Non-Compete Agreements

- You agree not to compete with your employer.
- Agreements Vary in Scope
 - Relationship of Employer Markets
 - Position
 - Time
- May Affect
 - Moonlighting
 - Career
- Can Be Very Restrictive



Employment Agreements

- Required as Condition of Employment
- Agreement May Cover
 - Non-Disclosure
 - Intellectual Property
 - Non-Compete
 - Etc..
- Agreements Vary
 - Employer
 - Position
- Probably Non-Negotiable for You



Remedies

- What happens if you violate an agreement?
- Agreements Vary
 - Function of
 - Employer
 - Position
 - Etc.
 - Can Be Severe
 - Should Be Taken Seriously
- Often Monetary Damages Levied Against
 - You Personally
 - Your Startup Company
 - Your New Employer
- Not to Be Taken Lightly

Typically pursued
in civil courts vis-
à-vis criminal
courts.



Seek Professional Advice

- If your idea is valuable,...
 - ...protect it,
 - ...in advance.
- Invest
 - Time
 - Money
- Consult
 - Trusted, Experienced Mentors
 - State and Local Development Authorities
 - Experienced IP Attorney
- In Advance



Questions?

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What's ahead?

[1 of 5]

- Upcoming Meetings and Due Dates
 - 10/07, Tu: Intellectual Property
 - 10/08, We: Alpha Presentation Slide Decks Due ←Tomorrow
 - 10/09, Th: Alpha Presentations
 - 10/10, Fr: TEFs Due by Email ←Read Submission Instructions
 - 10/14, Tu: Alpha Presentations
 - 10/16, Th: Alpha Presentations
 - 11/11, Tu: Beta Presentations
 - 11/30, Su: Project Videos Due
 - 12/03, We: All Deliverables Due



What's ahead?

[2 of 5]

Mid-Semester Team Evaluation Form (TEF)

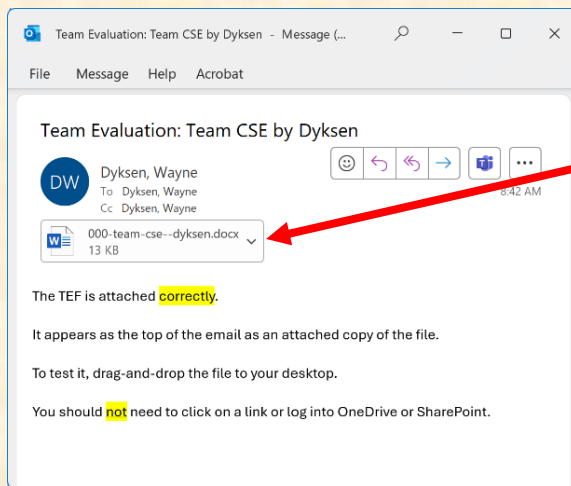
- Evaluate Every Team Member
 - Effort and Performance Ratings
 - Best and Worst Teammate Rating
 - Technical Contributions
 - Team Contributions
- 5% of Final Grade
- Distributed via Email
- Use Office 365 Word Native in Windows
- Submitted via Email Attachment
 - Read the directions.
 - Drag and Drop as Local File
 - Do NOT as OneDrive Document
 - Not Attached Correctly == Not Processed == -5.0
 - Cc Yourself



What's ahead?

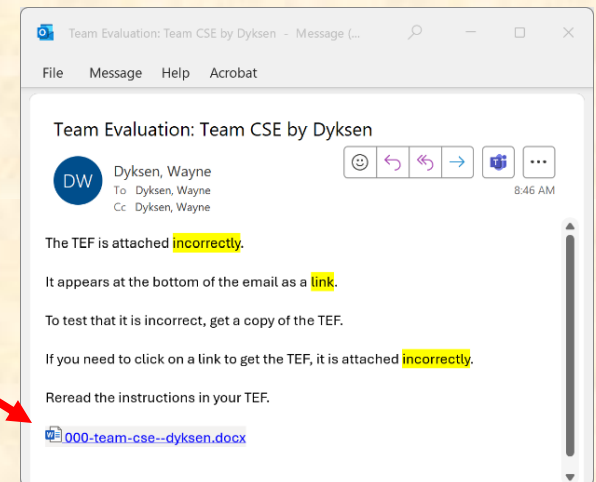
[3 of 5]

TEF Email Attachment (See Instructions in TEF.)



Correct

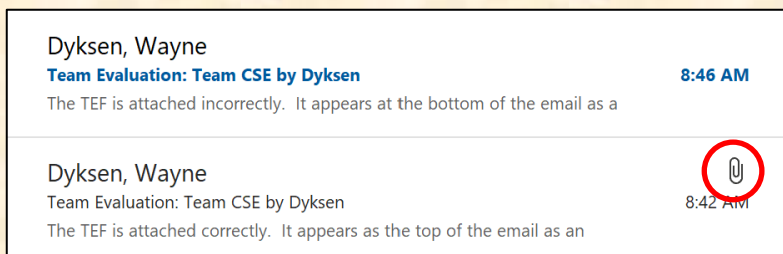
Incorrect



- Drag and Drop as Local File
- Do NOT as OneDrive Document
- Not Attached Correctly == Not Processed == -5.0
- Cc Yourself

Incorrect

Correct



What's ahead?

[4 of 5]

- Alpha Presentation
 - Th: 10/09, Tu: 10/14, Th: 10/16
 - Purpose: Demonstrate Your Team
 - Has Mitigated All Risks
 - Able to Meet All Specifications
 - Will Deliver Your Project on Time
 - Presentation
 - Rehearsed
 - Time: 14-Minutes
 - Demonstrate Working Software ←Note
 - 10% of Team Grade
 - Due Midnight, Wednesday, 10/08
 - Presentation Schedule Posted Evening Before First
 - Miss Team Presentation→Give Solo Presentation to TM and Dr. J.



What's ahead?

[5 of 5]

- Alpha Presentation Outline
 - Project Elevator Pitch
 - Very Brief Review of System Architecture
 - (Skip all screen shots.)
 - Software Demonstration
Most of Presentation
 - Brief Summary of What's left to do?