

MICHIGAN STATE

U N I V E R S I T Y

11/04: Intellectual Property

The Capstone Experience

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Fall 2019



*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
 - “© 2019 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
- 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 \$\$



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.
- Invest
 - Time
 - Money
- Consult
 - Trusted, Experienced Mentors
 - State and Local Development Authorities
 - IP Attorney
- In Advance



What's ahead?

[1 of 2]

All-Hands Meetings

- ~~W11, 11/04: Intellectual Property~~
- W11, 11/??: Design Day Booklet Edits
- W11, 11/06: Ethics and Professionalism?
- W12, 11/11: Team Status Reports?
- W12, 11/12: Team Status Reports?
- W13, 11/18: Team Beta Presentations
- W13, 11/20: Team Beta Presentations



What's ahead?

[2 of 2]

- All-Hands Meetings
- W14, 11/25: Team Beta Presentations
- W14, 11/27: Team Status Reports
- W14, 11/28: Thanksgiving
- W15, 12/02: Project Videos
- W15, 12/04: Project Videos and All Deliverables
- W15, 12/05: Design Day Setup
- W15, 12/06: Design Day
- W16, 12/09: Project Videos



READ ME

[1 of 4]

- Presenting
 - The purpose of the Beta presentation is to demonstrate that the software portion of the project is complete. While the system may not be totally bug free, the software is expected to be feature complete.
 - Think of your Beta Presentation as a preview of your project view.
 - The time limit for your presentation is 14 minutes, which will be strictly enforced. Practice your presentation to ensure that you will finish within the allotted time.
 - All team members are required to dress business casual on the day of their presentation. Business casual does not include sneakers, tennis shoes, hats, coats, hoodies, t-shirts or shirts that are not tucked into pants. Google “what is business casual.”
 - Plan on spending most of your presentation time demonstrating your software. A suggested approach is as follows.
 - Very Brief Review of Project Overview (30 Seconds)
 - Software Demonstration (Skipping System Architecture and All Screen Shot Slides)
 - Brief Summary of What’s left to do? (30 Seconds)
 - Your software demonstration should...
 - demonstrate that your system is feature complete,
 - demonstrate the main features of your software,
 - demonstrate some use cases,
 - be rehearsed, and
 - flow.

(Continued on Next Slide...)



READ ME

[2 of 4]

- Presenting (Continued)

- You should give live demos on actual hardware, rather than using screen recordings or simulators.
- We have a number of adapters for connecting various mobile devices to the projector. If you plan on doing so, ask the TAs well in advance to borrow an adapter and test it in advance.
- Our meeting room includes a document camera. You can use this to project mobile devices. If you plan on doing so, practice this in advance.
- We strongly suggest that, as a backup to live demonstrations, you make screen recordings of your software demonstrations using Camtasia in advance. Things can and do go wrong during live demonstrations.

For example, one semester a Google service went down just prior to a team's presentation, which ruined their presentation. You will get exactly one chance to present, so be prepared.

If your live demonstration fails, you can play a screen recording and talk through it. While this is not as good as a live demonstration, it's better than no demonstration at all.



READ ME

[3 of 4]

- Content

- Do not include any company confidential information in your presentation since all presentations will be posted on the web site.
- Screen Shots
 - You should include at least four screen shots.
 - Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.
 - You may duplicate the Screen Shot template slide as needed.
 - The screen shots are intended for posting on the web rather than for being used during your presentation so you may include as many screen shots as you like in this slide deck but skip many of them during your presentation by making them hidden slides.
 - The screen shots should not contain any bordering transparent or whitespace. Use paint.net to crop them appropriately. ← **Read this carefully.**
 - If a slide contains more than one screen shot or additional artwork (like an arrow), group all of the items into a single grouping so that it can be copied-and-pasted and resized as a single unit. ← **Read this carefully.**



READ ME

[4 of 4]

- Required Template

- Do not edit the Slide Masters.
- Throughout the PowerPoint template, replace placeholders [...] with the appropriate information.
- Edit the center footer by clicking the Header & Footer button on the Insert ribbon. Change [Team Name] in the footer to your company name as in “Team TechSmith Beta”. If necessary, extend the width of the center footer textbox on the master slide, making sure that you re-center the enlarged textbox.
- Do not change the organization of slides.

- Submission

- Although the presentations are scheduled over the course of three meetings, all teams must be prepared to present on the first day scheduled, Monday, November 18.
- The order of the presentations will be posted on our All-Hands Meetings page in the afternoon or evening of the day before the first day scheduled for presentations.
- Email your presentation to Dr. D. and your client by 11:59 p.m., Sunday, November 17. Send your presentation to your client in a separate email; do not cc me.
- For subject, use “Team <Team Name>: Beta Presentation” as in “Team TechSmith: Beta Presentation”.
- Attach the Windows PowerPoint source file named “team-[team-name]-beta-presentation.pptx” replacing “[team-name]” with your team name (using all lower case and replacing all blanks with dashes) in your filename as in “team-urban-science-beta-presentation.pptx”.
- Include some professional text in the body to practice being a professional and to avoid having your email sent to my junk folder.



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U N I V E R S I T Y

Beta Presentation

[Project Title 36pt]

The Capstone Experience

Team [Team Name 24pt]

[Team Member 1 16pt]

[Team Member 2 16pt]

[Team Member 3 16pt]

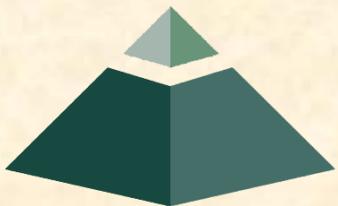
[Team Member 4 16pt]

[Team Member 5 16pt]

[Team Member 6 16pt]

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Project Overview

- Point 1
- Point 2
- Point 3
- Etc...

System Architecture

Include your system architecture diagram from your Project Plan presentation.

Update or redo your system architecture diagram if you were asked you to do so in your alpha presentation feedback.

Delete this textbox.



[Title of Screen Shot 1]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

You may duplicate the Screen Shot template slide as needed.

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Delete this textbox.



[Title of Screen Shot 2]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

You may duplicate the Screen Shot template slide as needed.

The screen shots should not contain any bordering transparent or whitespace. Use paint.net to crop them appropriately. ← **Read this carefully.**

If a slide contains more than one screen shot or additional artwork (like arrows), group all of the items into a single grouping so that it can be copied-and-pasted and resized as a single unit. ← **Read this carefully.**

Delete this textbox.



[Title of Screen Shot 3]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

You may duplicate the Screen Shot template slide as needed.

The screen shots should not contain any bordering transparent or whitespace. Use paint.net to crop them appropriately. ← **Read this carefully.**

If a slide contains more than one screen shot or additional artwork (like arrows), group all of the items into a single grouping so that it can be copied-and-pasted and resized as a single unit. ← **Read this carefully.**

Delete this textbox.



[Title of Screen Shot 4]

You must include at least four screenshots.

Include actual screen shots (i.e., not mockups), replacing [Title of Screen Shot] with an appropriate title.

You may duplicate the Screen Shot template slide as needed.

The screen shots should not contain any bordering transparent or whitespace. Use paint.net to crop them appropriately. ← **Read this carefully.**

If a slide contains more than one screen shot or additional artwork (like arrows), group all of the items into a single grouping so that it can be copied-and-pasted and resized as a single unit. ← **Read this carefully.**

Delete this textbox.



What's left to do?

- Task 1
- Task 2
- Task 3
- Task 4
- Etc...

Simply give a list of the major tasks that you need to accomplish to complete your project.

Only include things that are relevant to your software system.

Do NOT include things such as “Update the Project Plan” or “Create Project Video.”

Delete this textbox.



Questions?

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