

TE 250: Week 12

Financing

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Technology Entrepreneur Center

International Student Entrepreneurship Workshop

Can I start a business in the U.S.?

I'm an entrepreneur and require immigration sponsorship. What are my options?

What about visa classifications?

Fri | Nov 11 | 12:30pm

ENTREPRENEURSHIP HUB
1050 SIEBEL CENTER FOR DESIGN

Come learn about policies and requirements for pursuing entrepreneurship and starting a business in the U.S. from attorney Matthew Meltzer.
RSVP: go.illinois.edu/isew

Fri | Dec 2 | 4pm

ENTREPRENEURSHIP HUB
1050 SIEBEL CENTER FOR DESIGN

Come celebrate a semester of innovation & entrepreneurship! Over 60 teams showcasing their venture ideas, an awards ceremony, and FREE food. *RSVP Coming Soon.*



**INNOVATION
LEADERSHIP &
ENGINEERING
ENTREPRENEURSHIP**

“An engineer can change the world when technological and entrepreneurial skillsets are combined; this is what ILEE empowers its students to do.”

- HYEONG CHAN CHO, ISE & ILEE DOUBLE MAJOR

Apply by **November 15**
for Spring 2023 admission.
go.illinois.edu/ilee

Agenda

- Review rest of semester
- Intellectual Property
- Funding
- Pitch presentation examples
- Guest Speaker: Landon Campbell

Calendar

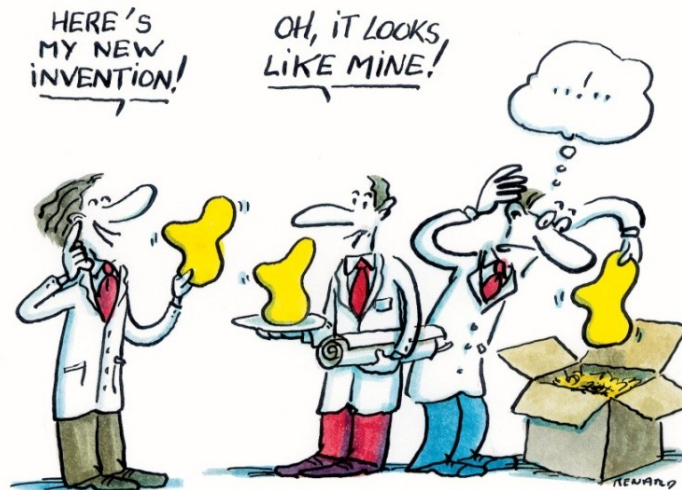
- Class content for rest of semester
- Content:
 - ~~Market Segmentation/Sizing~~
 - ~~Venture Formation~~
 - Intellectual Property
 - Funding
 - Financial Projections/Statements
 - Pitching
- Final Presentations (2): 11/30 & 12/7
- Attendance mandatory for both final presentation sessions
 - Failure to attend without excused absence results in loss of participation points

Intellectual Property

What is intellectual property (IP)?

Encompasses all forms of creativity:

- Inventions, discoveries, processes, know-how, show-how
- Unique materials, chemicals, biologicals, plants
- Original data and creative or artistic works
- Software, computer code



All companies have IP
Not all companies have an IP strategy
IP often is the main asset of a startup

Two sides of the coin

1. Freedom to Operate - make sure someone else's IP will not prevent your company from carrying out its business objectives
2. Blocking - protect your company's IP so it can be used to gain a competitive advantage in the marketplace by precluding others from utilizing the IP

Ownership of Work of Others (all IP)

- Employers - gain rights over works of employees if the work was created *within the scope of employment*
- Work for Hire – company commissioning the work may or may not become the owner (contractor owns the work unless documented otherwise – Nike Swish)

Always document these issues in a signed agreement

Ways to Protect IP

1. Copyrights – original works of authorship, including software
 - Books, movies, websites, etc.
 - 70/100 year rights
2. Trademarks – word, symbol or device that identifies the source of goods
 - Company logos
 - Perpetual rights
3. Patents – right to exclude others from making, using, or offering for sale the invention
 - 20 years from filing
4. Trade Secrets – secret information that gives owner a competitive advantage
 - KFC's secret recipe
 - Perpetual rights if it stay secret



Steps to getting a Copyright

1. Nothing

- Copyright is automatic upon creation
- Notice © 2018 Board of Trustees of the University of Illinois
- Registration not required - Prevents claim of “innocent” infringement
- Cost of registration between \$35 and \$55 depending on circumstances.



What is a Trademark?

- ▶ Distinctive Words, Names or symbols
- ▶ Identifies brand, manufacturer, origin
- ▶ Consistently used on products in marketplace
- ▶ Valid for 10 years, renewable
- ▶ Must be used, Must be enforced
- ▶ Cannot be generic
- ▶ Symbols ® vs ™
- ▶ Fees ~\$400 per class
- ▶ Average consumer cannot be confused

Examples:

- Logos: Nike Swoosh
- Names: Coca Cola®, Ivory, Kodak®, Crock Pot, Hoola Hoop
- Color/Sound: Pink – Corning insulation, NBC chimes
- Slogans: Don't leave Home without it, Have you driven a Ford lately?
- Container Shape/Packaging: Coke bottle





What is a Patent?

Purpose: “to promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”

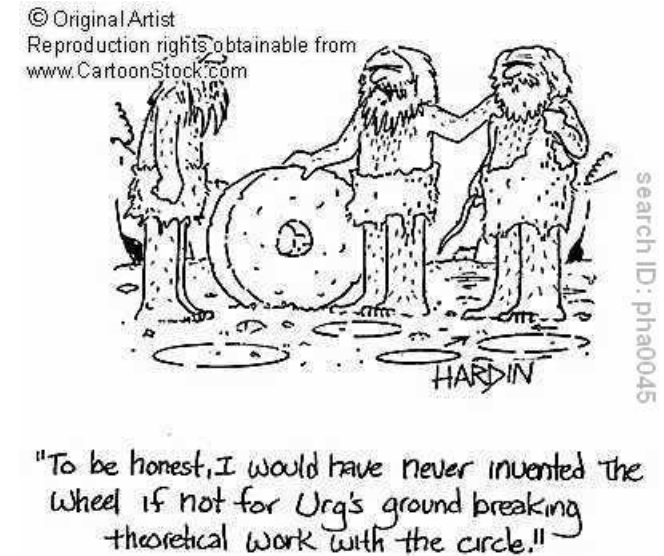
U.S. Constitution, Article I, Section 8

Utility Patents-Inventions can be:

- Compositions of matter – chemicals, bacteria, new drugs
- Machines, Devices, Manufactures, methods of making
- Processes, methods of treatment – using new or old compounds
- Any new or useful improvements or combinations thereof

What is Patentable?

- ▶ A patentable invention is anything under the sun made by man provided it passes the following tests:
 1. Novel
 2. Not obvious
 3. Useful
 4. Enabled
- ▶ Cannot Patent:
 - Naturally occurring articles
 - Laws of Nature, scientific principles
 - E.g. DNA



How do you obtain a Patent ?

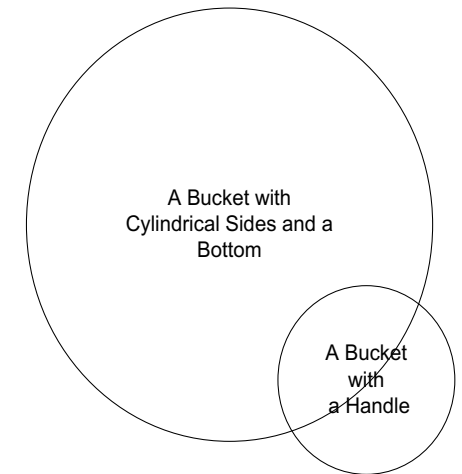
- ▶ File a patent application (description, drawings, claims) with the US Patent and Trademark Office (PTO)
 - Prosecute: Iterative process between PTO Examiner and you to arrive at claims
 - Claims are what defines your property
 - Costs range from initial filing fee of \$140 to \$000's depending on claims, countries filed in addition to legal expenses
- ▶ Patent 'Issued' around 2-3 years after first filing
 - Duration of patent is 20 years from filing
- International (Patent Cooperation Treaty)

What does a Patent do for you?



A patent gives its owner the right to *exclude* others from making, selling, using, or importing the patented invention for a limited time (20 yr)

- ▶ A patent does not guarantee you the right to practice!
 - May need other patents
 - Overlapping Patent Rights
 - Freedom to Operate
- ▶ Authorizing others is licensing.
- ▶ Using others' claims in a patent without a license is infringement
 - ▶ 3x penalties



CONFIDENTIAL

Trade Secrets – Definition

- Any formula, pattern, device or compilation of information used in a business that gives the trade secret owner an *opportunity to obtain an advantage* over competitors who do not know it. The trade secret can not be public knowledge.
- Examples: KFC secret recipe, Coke formula



Licensing as a way to Commercialize IP

▶ What is a **License**?

- A legal agreement between the owner of the IP (licensor) giving a company (licensee) the right to use the IP.

▶ Defines rights and obligations of the parties

- Right to Sublicense
- Term/Duration

▶ Owners can divide IP rights by

- Field of use
- Geographical territory
- Exclusivity

▶ Requires Licensee to

- Royalty payment
- Diligence in commercialization
- Defines remedies if obligations are breached



Start Up IP Considerations

Your Product Features	Utility Patent < 1-yr old	Design Patent < 1-yr old	Trademark	Copyright
Brands, names, logos, slogans				
2-Dimensional designs				
3-D product shapes (appearance only, not function)				
Creative, artistic works (books & writings, artwork, audio, video, graphic design, printed materials, website text & design)				
Software source code				
Software functionality, web apps, business methods				
How your invention <u>works</u> (a better device or way of doing something)				
How your invention <u>looks</u> (an aesthetic/ornamental design)				

TECHSTARTUPLAWYER

<https://live-techstartuplawyer.pantheon.io/wp-content/uploads/2013/11/IP-Checklist-Article-2.pdf>

Note: business methods patents more difficult to obtain since 2014

Financing

Commercial Pathway

- “Venture Backable” Startup

- Very strong and targeted value prop
- Large and growing market (>\$500m)
- Scalable product offering
- Team is highly experienced

- “Lifestyle” Startup

- Low capital investment required
- Quick to revenue
- Manageable by a small team

- Small Business

- Low capital investment
- Quick to revenue
- Linear growth possible

- “Buyable” Startup

- Need investment to reduce well defined risk that increases value
- Other entities better positioned to take to market (e.g. Therapeutics)

- License

- Other entities have capabilities needed to realize market value
 - Partial solution or complimentary tech
 - Access to customers
 - Sales, service, distribution, manufacturing infrastructure

WARNING: Some opportunities don't have a path!

Broad Categories of Funding

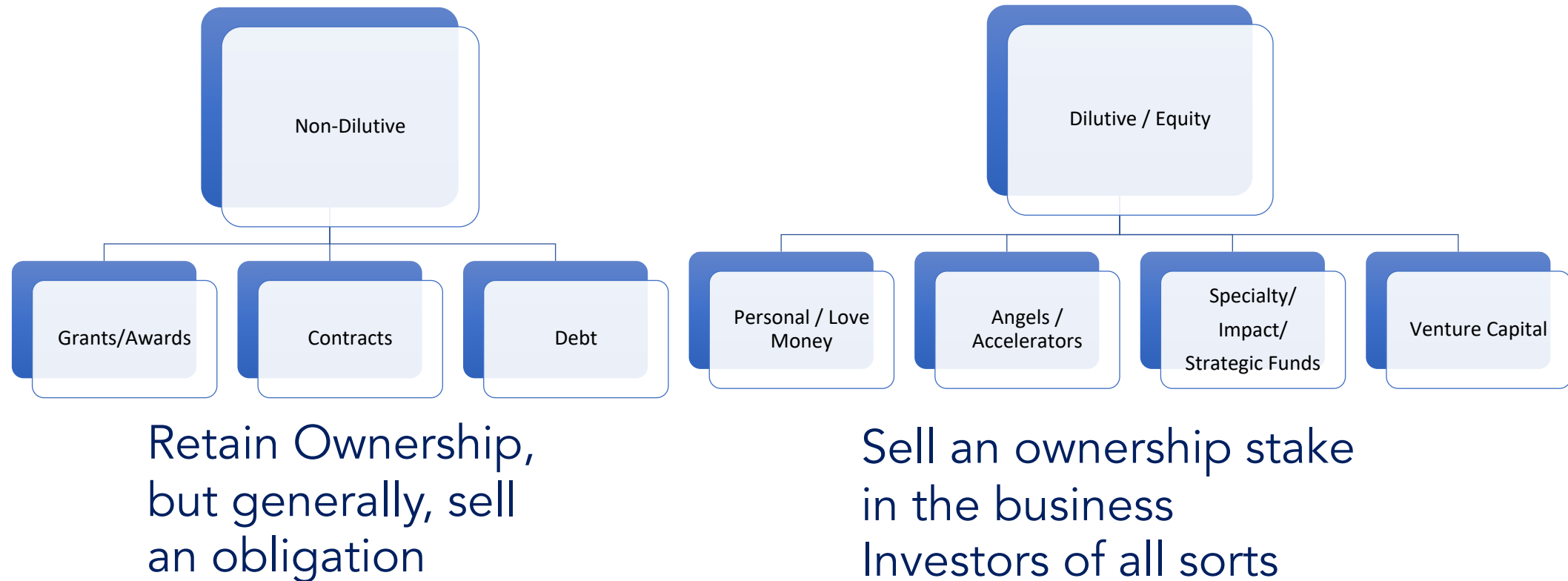
1. Non-Dilutive

- Retain ownership in the business,
but generally, owe something in return
 - eg. Grants, Loans, Awards, Strategic,
Revenues

2. Equity (Dilutive)

- Sell ownership stake in the business
 - eg. Investors of all sorts

Other People's Money



Sources of Non-Dilutive Funding

- Grants / Awards
 - Business Competitions / Awards
 - Business/Economic Development Organizations
 - Government and Foundation Grants
- Contracts / Revenues
 - Crowdfunding
 - Bootstrap (company profits)
 - Contract Research / Joint Development Agreements
- Debt
 - Banks (SBA)
 - Bonds

Business Competitions / Awards

- Prize Money is very limited
- Dependent on chance, to a degree
- No repayment, money is awarded for work already completed

Business/Economic Development Organizations

- Regional Funds, economic development authorities
- Foundations & Institutions
 - private family foundations
 - Universities
- Grants and debt financing (sometimes liberal equity SAFE)
- Often have preference for capital intensive and/or technology-oriented businesses
- Metric is often to create a specific number of full-time jobs
- Typically capped

Gov't. & Foundation Grants

- Available only under very limited circumstances
- Typically, not available for retail, restaurants, etc.
- "Free" money but not "easy" money
- Don't have to repay, but deliverables still due
- Typically retain ownership of intellectual property
- Submit in response to a specific request for proposal (RFP) from a government agency www.sbir.gov
- Align objectives with mission of private foundations, e.g. disease elimination

SBIR / STTR

- Small Business Innovative Research Grants
- 11 Government agencies (multiple components in different agencies)
- Small Technology Transfer Program
 - Like SBIR, but must have a research institution involved (30%)

Objectives of the Program (NSF)

- Nurture high-impact technology innovations
- Grants, not contracts (no equity taken)
 - Strong focus on commercialization
 - Other agencies have specific calls
- De-risk for other investors

Crowdfunding

- Opposite of customer-centric design
- Public-facing, popularity contest
 - Failure is also public
- Surge in popularity due to online platforms
- Lack of accountability
- Notorious for under-delivering
- Favors consumer products

Bootstrapping

- Use company profits to grow the business, the “old fashioned” way
 - Revenues from early product sales
 - Consulting supports product development
 - Requires customer-centric development process so that you can bill for early product sales
 - Highly desirable, but not possible for some businesses

Contract Research/Joint Development Agreements/Partnerships

- Established industry (Gov) player interested in small company's tech may provide money and resources to refine product
- Built-in customer
 - license of intellectual property
 - Share in rights/sales/profits
- Use caution with respect to ownership of IP generated under JDA
- Nondisclosure agreements needed
- Risks: superior litigation resources available to big company in event of dispute

Banks (SBA)

- Asset-based lenders
 - require collateralization & personal guarantee
- Risk averse, but cost of borrowing is less
- Require good credit record
- Will want to see a written business plan
- Typically want 20% financed by you
- SBA loans can allow bank to take on more risk
- Credit cards

Bonds/Convertible Notes

- Debt where the issuing company promises to pay the bondholders a specific amount of interest for specific amount of time and to repay principal on expiration date
- Can offer a very favorable interest rate and no loss of equity
- Typically, feasible only for substantial amounts of capital
- Must demonstrate ability to repay from cash flow

Dilutive Funding Options

Equity Funding

- Share an ownership stake in the business in exchange for capital
 - company stock or membership
- Can have significant effects:
 - Cap Table
 - Operating Control
 - Board of Directors
 - By-laws
 - Voting Rights
 - Future rights, protective covenants

Sources of Equity Funding

- Personal Funds
- Friends & Family
- Angel Investors
- Accelerators
- Impact Investment Funds
- Strategic Capital
- Venture Capital
- Investment Banks / Private Equity
- Initial Public Offering (IPO)

Personal Funds

- Self-Financing, e.g. personal savings
- Start here if at all possible
- Maintain control
- Later investors will look for “skin in the game”

Friends & Family (and Fools)

- Aka “Love Money”
- Exercise *extreme* caution
 - \$\$\$ can ruin relationships
- Can investor afford to lose the money?
- How will others feel?
- Document everything as you would a normal business transaction

Angel Investors

- High net worth individuals seeking high return investments
- Often collaborate in networks
- Three types
 - Smart Money: add value to company through expertise or contacts
 - Dumb Money: Passive investors; not additive, but not deleterious either
 - Dumb money that thinks it's Smart: the worst; The kind that think they add value

Accelerators

- Several options available
 - Y Combinator
 - Tech Stars
 - mHUB
- Cohort-based startup bootcamp
- Seed capital on fixed terms
 - Usually 5-10% stake
- Programming + mentorship
 - Usually 3-12 mos
- Culminate in a pitch day for investors
 - *NOTE: NOT the same as an incubator*

Impact Investment Funds

- Intentionality
 - Economic development
 - Social good
 - Specific objective (green tech, health, education)
- Investment with Return Expectations
- Range of Return Expectations and Asset Classes
- Impact Measurement

Strategic Investors

- Established corporate players in your field looking for innovative developments
- Create venture divisions
- Investments in exchange for first rights
 - Built-in customer
 - Can be a double-edge sword if they don't later pursue
 - Be careful on rights you grant them

Venture Capital

- Equity (unsecured) investment with active role
 - Board participation
 - Strategic marketing
 - Governance
 - Capital structure
- Established to invest in specific categories (investment thesis)
- Difficult to obtain, usually takes several years of development before company is ready
- Often acquire significant portion of business and control
- In exchange for risk, will seek high return within fixed timeframe
- Most valuable when rapid growth and exit are practical

VC Objectives

- Inherently high risk, requires high reward
- Long-term or “patient” capital allows companies time to mature to profitability
- Goal is superior rate of return;
 - ALWAYS considers exit from outset

Investment Banks/Private Equity

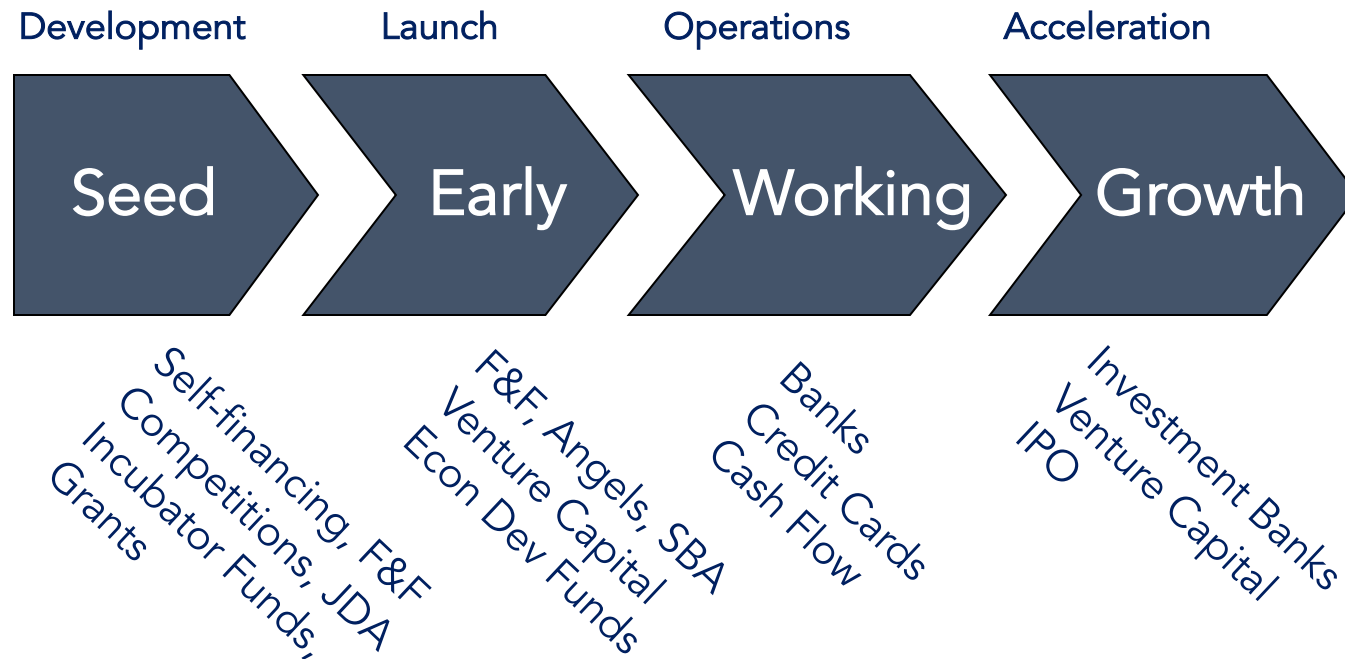
- Very large dollar value transactions
- Generally used for
 - strategic positioning
 - Roll-ups
 - Preparation for public offering
 - Privatization of public companies

Initial Public Offering

- Very few companies go public
- Most exit through sale to another company or just operate and then wind down
- Historically very expensive but new novel ideas emerging
 - SPCs, Direct Listings, Tracking Stocks, etc.
- Cumbersome registration & reporting

Types of Funding

- Different types of capital for different stages of business



Getting ready to pitch

Example from previous semester

- https://mediaspace.illinois.edu/media/t/1_bkqex8tl
- 41:30 – 51:33

Getting ready for Week 13

- Topics for next week: Venture Accounting, Making the pitch
- Team Assignment: Finish interviews
- Start thinking about your pitch deck

Guest Speaker:
Landon Campbell
Drive Capital

