

TE 250: Week 3

Customer Development

John Thode

jthode@illinois.edu



Teams
You OWN IT!



THE HALOID COMPANY

ROCHESTER, N. Y.



Problem

Double Entry Accounting

10.-22.-28
ASTORIA

Chester Carlson



Moral of the Story

- It is not about technology but
 - What problem are you solving
 - Who are you solving it for
 - What benefit is it providing that the customer is willing to pay for
- The Haloid Company
 - Failed based upon its technology
 - Most successful business service company in history
 - Business Model Matters
- Lean Methodology – Would have saved Haloid 30 years
- Other examples of successful business model reinvention?

Innovation Scorecard

The Facts

99.7% of all documented ideas fail.

75% of all VC backed ideas fail.

- 1. Why do they fail?**
- 2. What can we do about it?**

Why do they fail?
What can we do about it?

More startups **FAIL
from a lack of customers
than from a failure
of product development**



#1, #2, #3, and #4
are all the result
of building the
wrong thing.

79%

Drastically increase
your chances
of success!



Why It Matters...

Design

User experience



Traditional Approaches

**focus on reducing either
technology risk
or execution risk.**

Both are hugely important.
Just not right now.

Three Questions for Any New Innovation

- What value are you delivering and to whom?
 - Value Proposition and Customer Segment
 - Product-Market Fit
- Is there are viable business model for delivering that value?
 - Business Model Canvas
- Is there an appropriate return on investment for the project?
 - Market size
 - Project plan

MUST
ANSWER
IN THIS
ORDER

In The Past

- What value are you delivering to whom?
 - Value Proposition and Customer Segment
 - Product-Market Fit
- Is there are viable business model for delivering that value?
 - Entire business model canvas

- Is there an appropriate return on investment for the project?
 - Market size
 - Project plan

People assumed the previous two questions were correctly answered.

So what about *MY* technology?

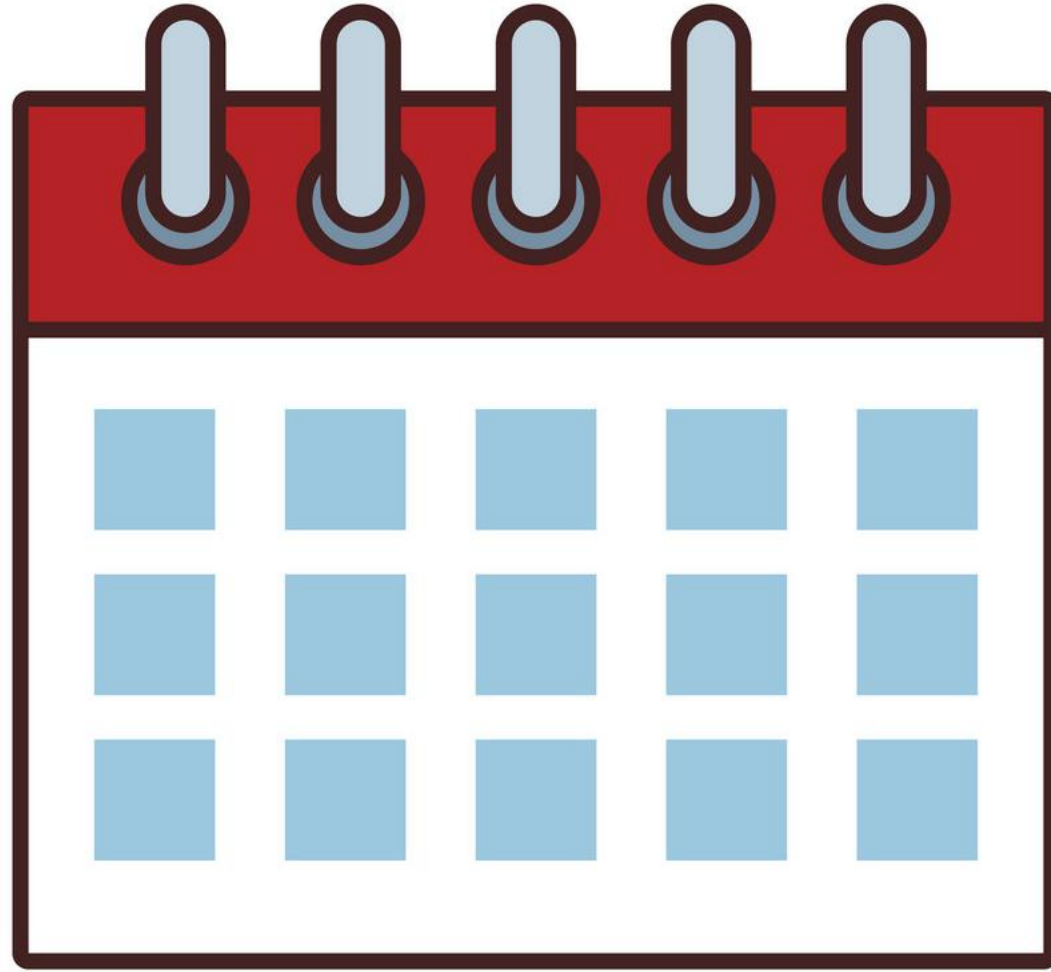
NOBODY CARES



They only care about
what it can do for *THEM*.



**Your business idea
needs to **solve a problem**
your potential customer
will **PAY** for.**



weeks, instead of years

How can we avoid...

**BUILDING SOMETHING
THAT NO ONE CARES ABOUT**

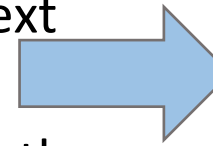
(... and find something they DO care about?)

Customer (Problem) Discovery

Customer discovery is THE most important source of learning.

DO THE WORK!

- Schedule and meet with at least 20-30 customers over the next 12 weeks.
- Coaching Sessions: Meet individually or as a team 3x's during the program
- Keep an open mind and listen carefully to customer input/feedback.
- Log your interview notes and insights in the customer discovery worksheet provided in Canvas.
- Expect to “educate yourselves” rather than to “educate your listeners.”
- Get out of your comfort zone... Get out of your comfort zone.

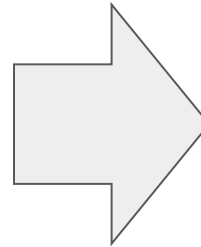


Customer discovery is THE most important source of learning.

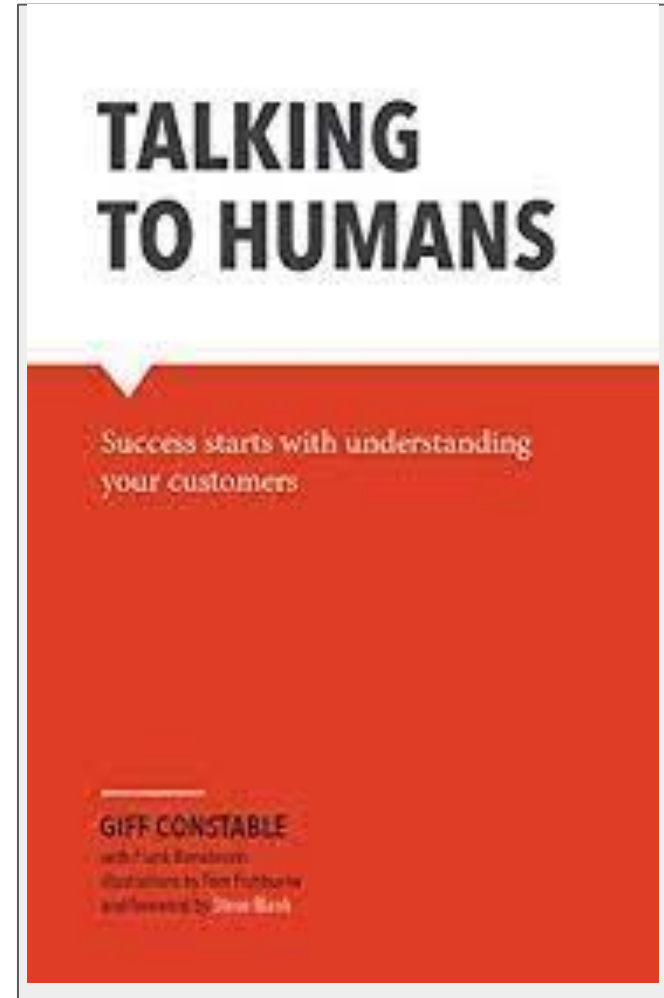
HOW DO I GET STARTED?

Get ready to “*Get out of the building*”

**READ
THIS**
(Thank you)



Especially pages 31- 66!



Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Have a focus...***What do you want to know?***

1. Begin with a hypothesis

“X (customer) will derive Y (benefit) from adopting my product or service”

2. Plan an interview to validate or invalidate your hypothesis
 - Right now, *we are searching for **problems** (or “unmet needs”) that pair with our technology/solution.*
 - Try out the “Customer Interview Plan Template” (Module 1 - Customer Interview Plan) to plan a problem interview.



Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Have a focus...*From whom?*

1. Target *specific* PEOPLE (Name, Title, Industry)
 - a. People buy products
2. First 5-6 interviews with “friendlies”
 - a. Practice interview structure, dos and don’ts
 - b. Seek ideas on next interviews
 - c. Get the bugs out before talking to prime prospects
3. Competitors can be a good next step to learn how the industry works
4. End every interview by asking for referrals
(try to get at least 3)

“Specificity wins in entrepreneurship, not broad generalizations”

-Bill

Aulet

Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Plan ahead! Interviews take time to arrange

You can start documenting your scheduled appointments on the “Customer Discovery Interview Tracker Template” (Module 2 - Customer Discovery Interviews)

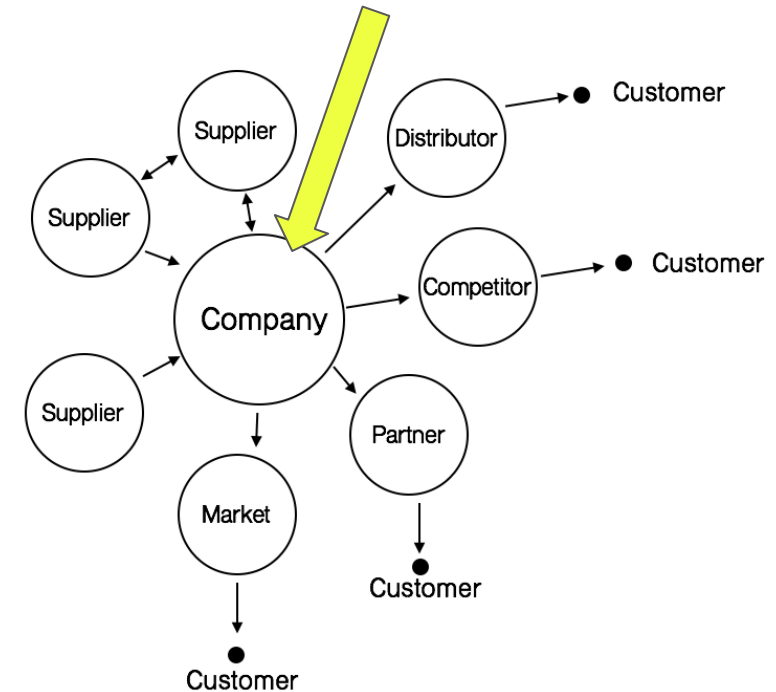
**YOU HAVE TO
TO CREATE
A SENSE
OF URGENCY
AND FOCUS
IN EVERYTHING
YOU DO**

Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Building a healthy “pipeline”

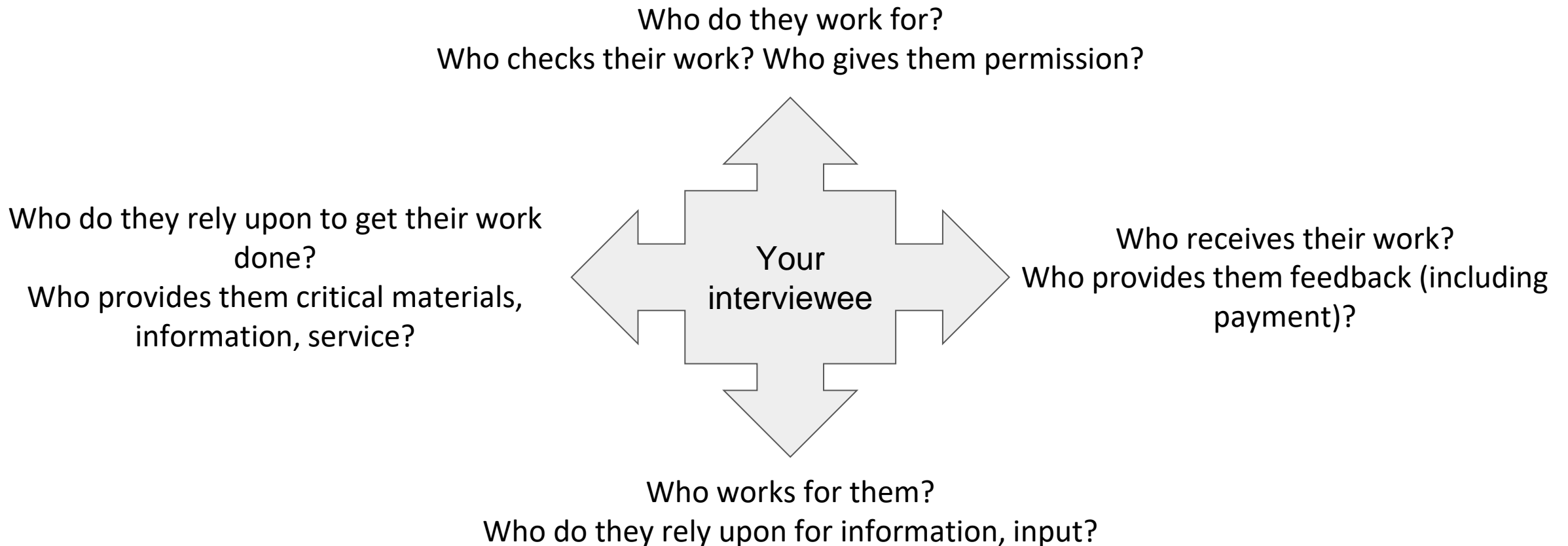
1. Start in “the middle” and work out
 - a. Your place in “the system” that leads to your end user is “the middle”
 - i. Work Process/Job
 - ii. Supply chain - flow of goods, services or information
 - iii. Value chain = quote to cash
 - b. Within an organization targeting middle managers is a good place to start



Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Building a healthy “pipeline”...working out from “the middle”



Customer discovery is THE most important source of learning.

HOW DO I GET STARTED?

Building a healthy “pipeline”...some practical tips

Fortify your LinkedIn network now...

- Invite new connections
- Seek out user or trade groups to join within your industry
- Start following companies in your industry



Search for industry association conferences

- In-person - unlikely still
- Online conferences have a growing presence
 - 10times
 - Eventbrite
- Get familiar with industry publications and relevant standards groups



Relax, it's just a conversation.

Business Model Canvas (BMC)

**“A STARTUP IS A TEMPORARY
ORGANIZATION DESIGNED
TO *SEARCH* FOR A *REPEATABLE* &
SCALABLE BUSINESS MODEL.”**



Steve Blank

Your Business Model Is Your Destiny!

fea·si·bil·i·ty

/can our startup build it?/

Infrastructure

Key Activities
Key Resources
Key Partners

de·sir·a·bil·i·ty

/do the customers want this?/

Product - Market

Customer Segments
Value Proposition
Channels
Customer Relationships

vi·a·bil·i·ty

/can we build a sustainable business?/

Economics

Revenue Streams
Cost Structures

Competition

Every good idea has competition. **Period.**

~~We are the only ones doing X...~~

~~Our solution is novel...~~

Our Company Competitive Analysis

Goodness

Our Company



Our Competitors

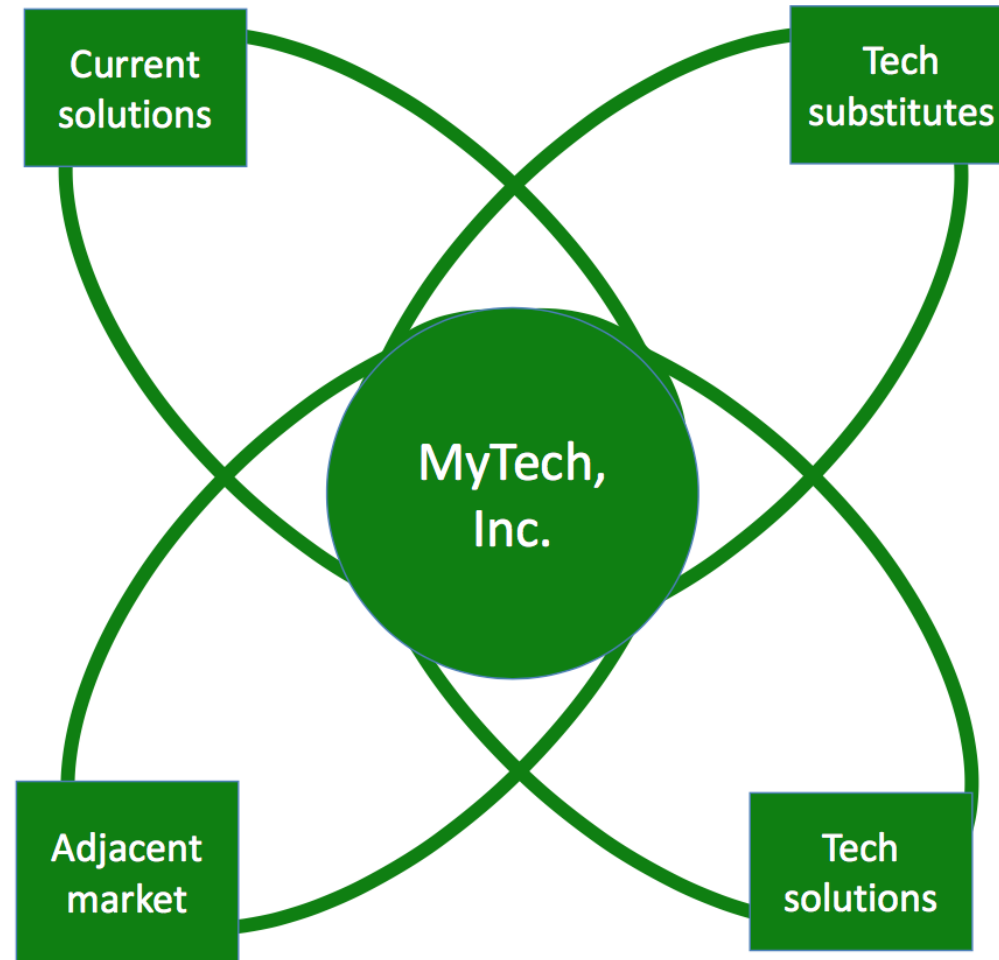


Badness

Goodness

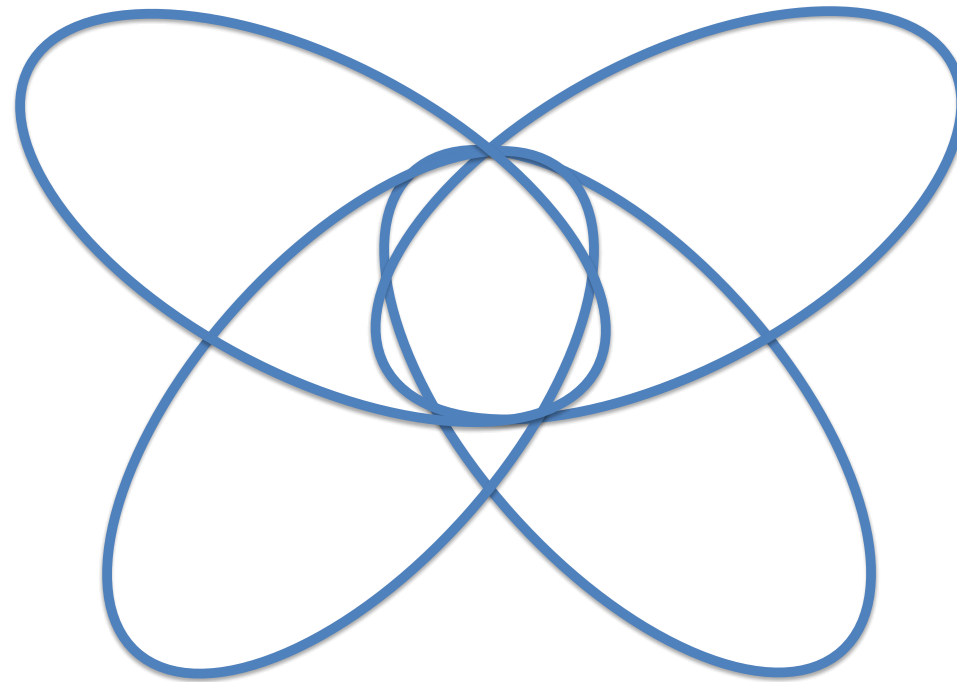
.INOIS

Petal Diagram



Petal Diagram: Competitive Landscape

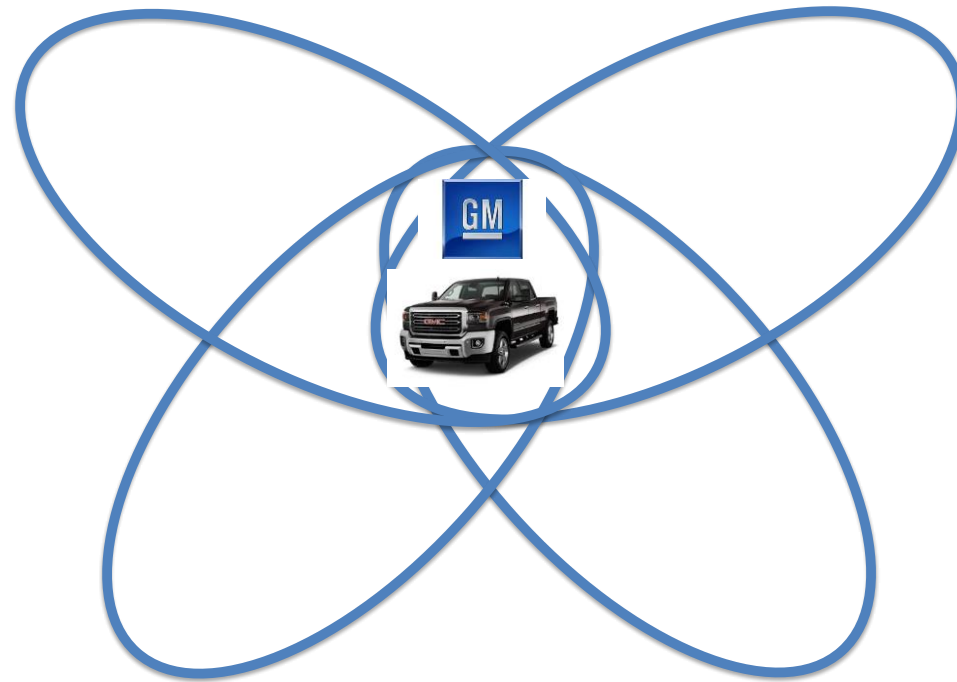
Transportation



Petal Diagram: Competitive Landscape

Passenger Vehicles, Light Duty Luxury Pick Up Trucks

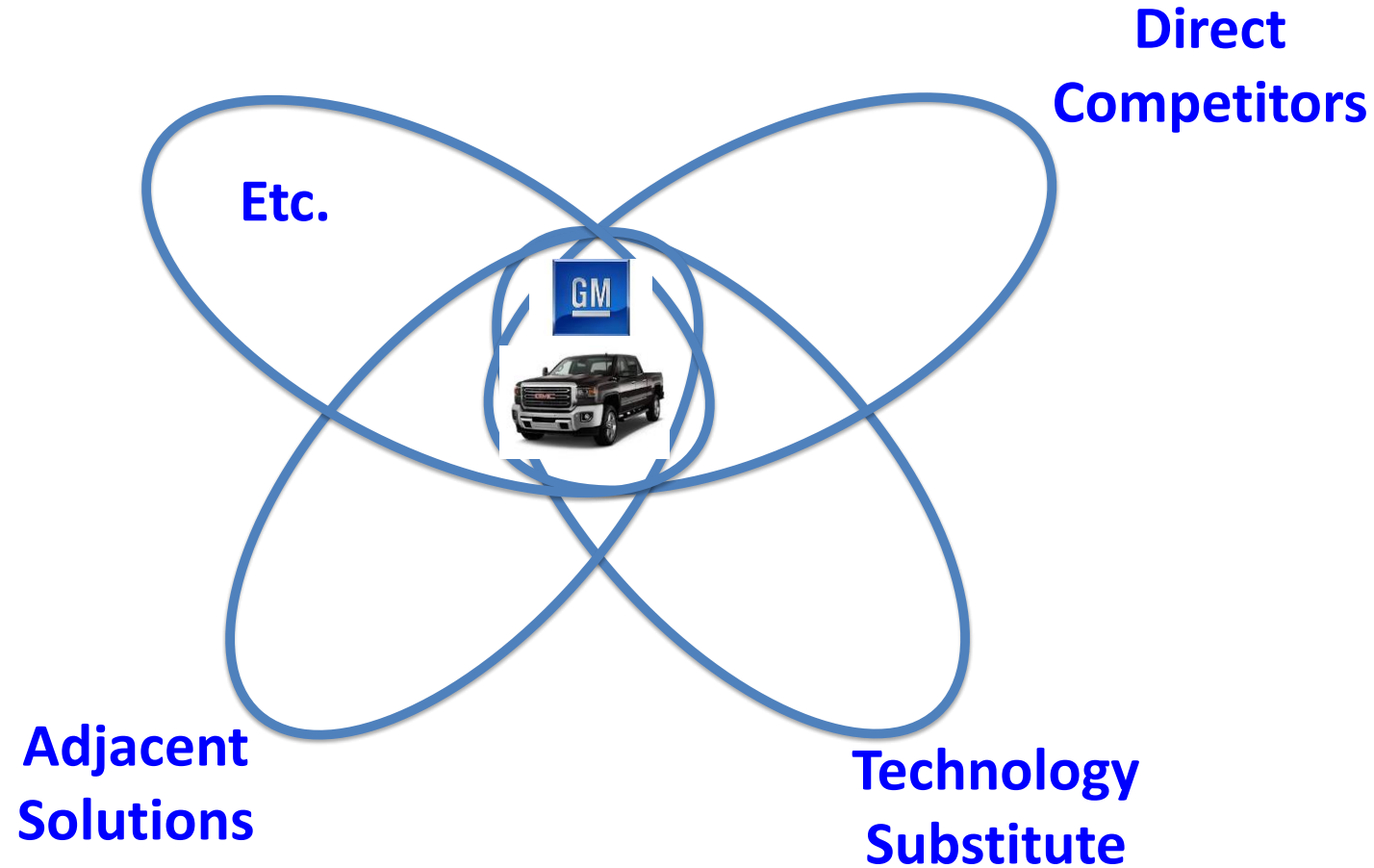
Transportation



Customer Segment: Weekend Home Renovation Warrior
Value Proposition: “Haul stuff back from Home Depot”

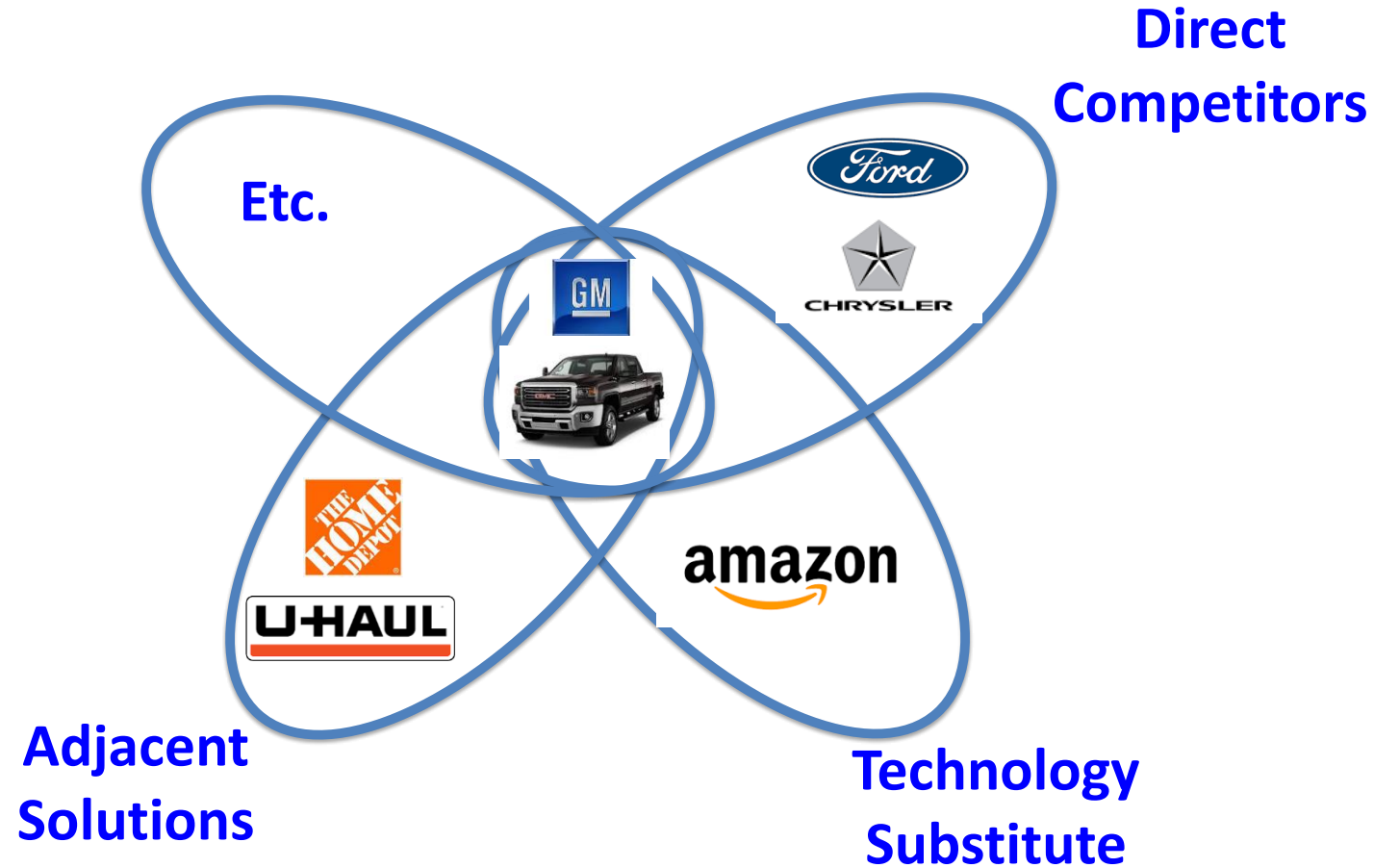
Petal Diagram: Competitive Landscape

Passenger Vehicles, Light Duty Luxury Pick Up Trucks



Petal Diagram: Competitive Landscape

Passenger Vehicles, Light Duty Luxury Pick Up Trucks

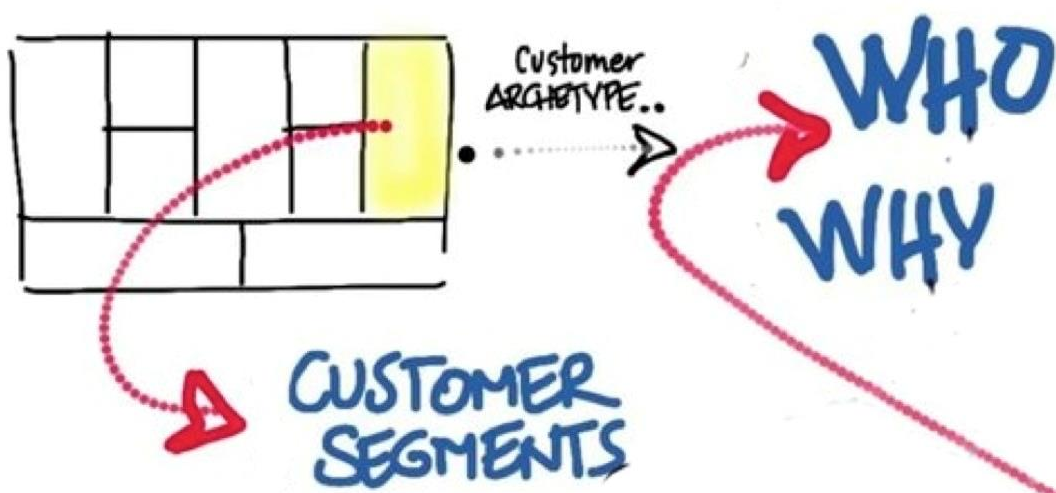


Value Proposition: “Haul stuff back from Home Depot”

Competition

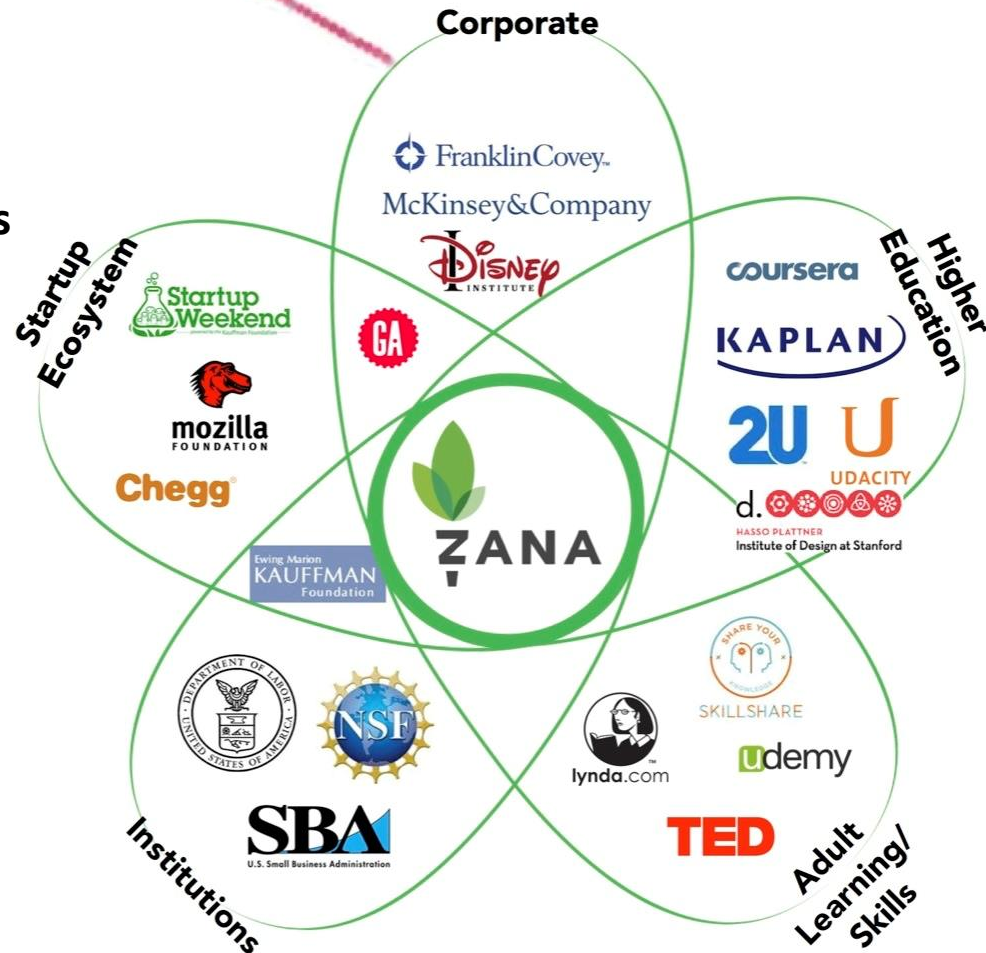
**One of your biggest
competitors will be the
status quo.**

(also know as doing nothing)



The Petal Diagram drives your business model canvas.

- X/Y competitive graphs are appropriate in an existing market
- Mapping potential competitors in new or resegmented markets requires a different view
- The competitive diagram is how you develop your first hypotheses about who your customers are



Assignment #2 – Individual Assignment

Every team has a project. Every project proposes to solve a problem, but we haven't yet proven to ourselves that we have identified the best business solution to that problem.

The assignment is to identify multiple possible solutions to the problem:

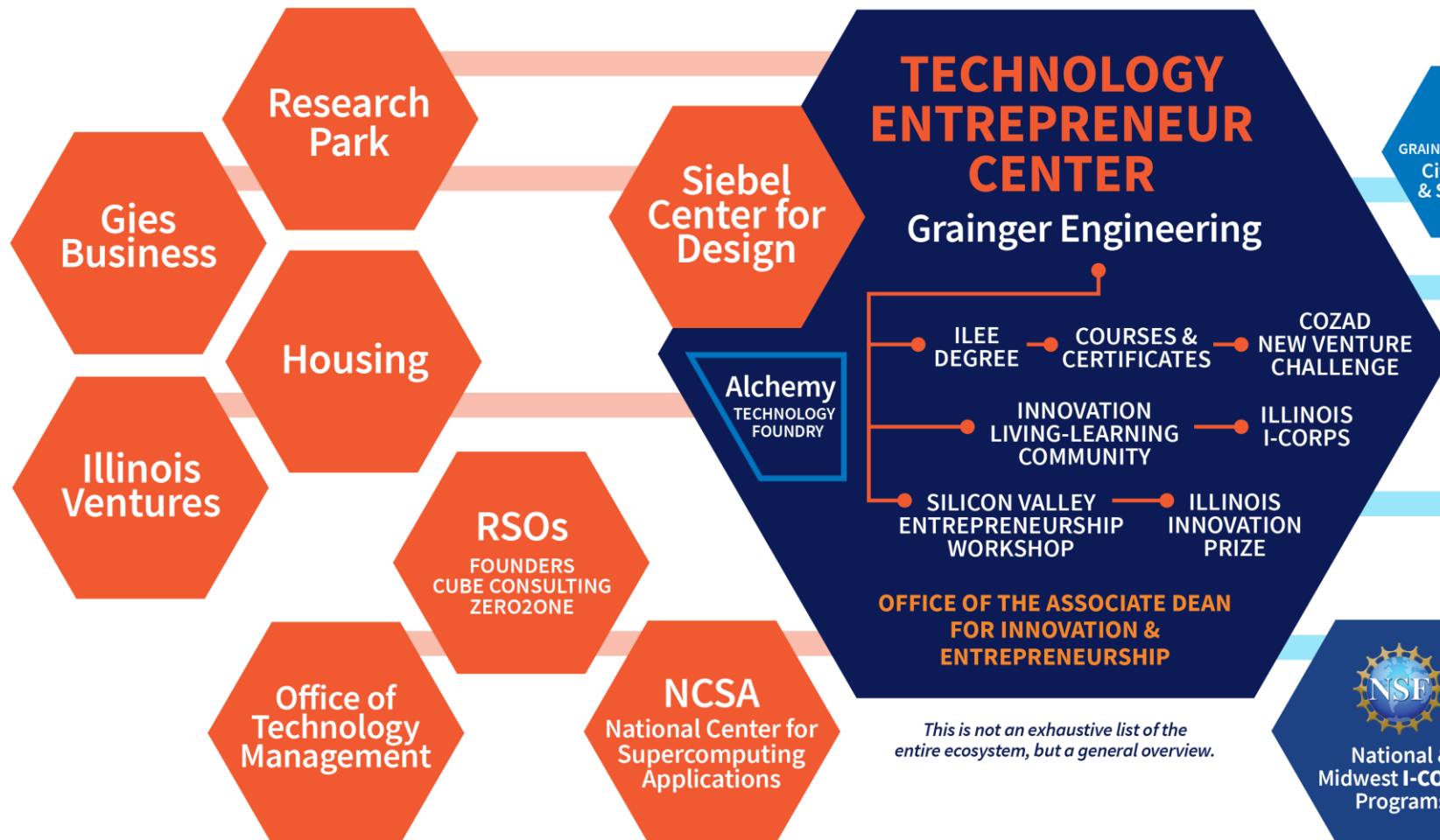
- Current Solutions: How do people currently solve the problem? Hint: it may not appear to be a direct competitor to your solution. Example: Instead of an electric scooter, I could ride a bike, take a bus or walk.
- Preventative Solutions: How might someone prevent the problem from occurring in the first place?
- Competitive Solutions: How do your (potential) business competitors solve the problem? Name at least three.
- Alternative Solutions: What's another way you could solve the problem? Name at least three. Which is your favorite and why?

This is a case where the more solutions you can identify, the better.

Grainger Engineering | Innovation & Entrepreneurship Ecosystem



INTERNAL PARTNERS



EXTERNAL PARTNERS



This is not an exhaustive list of the entire ecosystem, but a general overview.

Grainger Engineering | Entrepreneurship Education Pathway for Students



EXPLORE & IDEATE

A great place to start! Take a peek under the hood of innovation & learn what an entrepreneurship mindset might mean for you.

COURSES

- TE 100** | Introduction to Innovation, Leadership, & Engineering Entrepreneurship
- TE 200** | Introduction to Innovation
- TE 230** | Design Thinking/Need Finding
- TE 333/TE 598** | Creativity, Innovation, Vision
- SE 361** | Emotional Intelligence Skills
- TE 398** | Innovation & Engineering Design
- TE 401** | Introduction to Design Thinking **SCD**

UNDERGRAD CERTIFICATES

- Innovation
- Technology Commercialization

BS DUAL DEGREE

- Innovation, Leadership, & Engineering Entrepreneurship (ILEE)

PROGRAMS & EVENTS

- Chicago Entrepreneurship Workshop
- Entrepreneurship Advising
- Grainger Engineering City Scholars
- Grainger Engineering Startup City Scholars
- Innovation Living-Learning Community (LLC)
- TEC Student Advisory Board
- ThinkChicago
- Silicon Valley Entrepreneurship Workshop
- SocialFuse



DESIGN & EVALUATE

Ideas are developed here! Determine needs in the market & develop solutions that address real-world problems.

COURSES

- TE 230** | Design Thinking/Need Finding
- TE 250** | High Tech Ventures: From Idea to Enterprise
- TE 333/TE 598** | Creativity, Innovation, Vision
- TE 360/460** | Lectures in Engineering Entrepreneurship
- TE 398** | Innovation & Engineering Design
- TE 398** | Urban Entrepreneurship
- TE 401** | Augmented Listening Technology
- TE 401** | Design Thinking for Social Impact **SCD**
- TE 401** | Design Thinking for Women's Health **SCD**
- TE 498** | UX Fundamentals **SCD**

UNDERGRAD CERTIFICATES

- Innovation
- Technology Commercialization

BS DUAL DEGREE

- Innovation, Leadership, & Engineering Entrepreneurship (ILEE)

PROGRAMS & EVENTS

- Entrepreneurship Advising
- International Student Workshop
- Silicon Valley Entrepreneurship Workshop
- SocialFuse
- HackIllinois **UIUC STUDENT-RUN EVENT**



BUILD & LAUNCH

Startups take shape here! Dig deeper into the commercialization stage and make sure your startup is best prepared to hit the market.

COURSES

- TE 250** | High Tech Ventures: From Idea to Enterprise
- TE 298** | Communication for Tech Innovators
- TE 360/460** | Lectures in Engineering Entrepreneurship
- TE 398** | Successful Storytelling: Designing the Ultimate Pitch **SCD**
- TE 401** | Developing Breakthrough Projects (Independent Study)
- TE 450** | Startups: Incorporation, Funding, Contracts, & Intellectual Property
- TE 461** | Technology Entrepreneurship
- TE 466** | High Tech Venture Marketing
- TE 498** | Alchemy Technology Foundry **ECE**
- TE 498** | Hacking for Defense
- TE 565** | Technology, Innovation, & Strategy

UNDERGRAD CERTIFICATES

- Innovation
- Technology Commercialization

BS DUAL DEGREE

- Innovation, Leadership, & Engineering Entrepreneurship (ILEE)

PROGRAMS & EVENTS

- Cozad New Venture Challenge
- Intellectual Property Clinic
- Mottier Innovation Challenge **ISE**
- 54 Startup Weekend **FOUNDERS RSO**



GROW & SCALE

Ventures level up here! Become the hero of your market as you position your venture to quickly reach more customers successfully.

COURSES

- SE 361** | Emotional Intelligence Skills
- TE 398** | Bootstraps to Venture Capital: Funding Your Startup
- TE 450** | Startups: Incorporation, Funding, Contracts, & Intellectual Property
- TE 466** | High Tech Venture Marketing
- TE 498** | Leading Sustainable Change
- TE 498** | Alchemy Technology Foundry
- TE 566** | Finance for Engineering Management
- TE 567** | Venture Funded Startups
- TE 565** | Technology, Innovation, & Strategy

GRAD CERTIFICATES

- Business Management for Engineers
- Strategic Technology Management

PROGRAMS & EVENTS

- Illinois I-Corps
- Illinois Innovation Prize



Technology Entrepreneur Center Degree, Courses, Certificates, & Programs (unless otherwise noted)

Gies College of Business

- Disruption Lab
- Origin Ventures Academy for Entrepreneurial Leadership
 - *iVenture Accelerator*
 - *Illinois Social Innovation*
 - *EntreCORPS*
 - *Entrepreneurs Without Borders*
- Hoeft Technology & Management Program
- Illinois Maker Lab

Research Park

- EnterpriseWorks
- Entrepreneur-in-Residence Program
- AgTech Innovation Summit
- Big Data Summit
- CEO Roundtable
- SBIR & STTR Technical Assistance Program
- I-Start Accelerator Program

Illinois Ventures

- Consulting Services & Funding
- Proof of Concept Grants

Siebel Center for Design

- New Courses based in Design Thinking (DT) & Human Centered Design (HCD)
- Integrating DT & HCD into Existing Courses
- Fostering Multidisciplinary Collaborations
- Innovative Building Space Opening Soon
- DT & HCD Training
- Illinois RapidVent Partner

Office of Technology Management

- Disclosure & Licensing Info
- Illinois Ignite & Share the Vision Events
- Illinois Proof of Concept (I-POC) Program

RSOs

- Founders: Illinois Entrepreneurs
- Zero2One
- CUBE Consulting
- OTCR Consulting