

The Nuts and Bolts of New Ventures

MIT Course 15.393 (36th Year)

Joe Hadzima

(MIT S.B., M.S. in Management; J.D. Harvard Law)
Senior Lecturer, MIT Sloan School
Managing Director, Main Street Partners

Session 1 – Part 1

Introduction to New Ventures

Why Are You Here?

- You don't know anything about Entrepreneurship and want to understand what it's about
- You see something that "Sucks" and want to make it better
- You have an Idea or Invention and want to bring it to life in some way – To Change The World
- Being an Entrepreneur is Glamorous and I can make a lot of money

So Many Questions You Need To Answer

- How Do I Start? What Do I Do?
- What is the Problem that I am solving?
- How does my Solution Solve that Problem?
- "Who Cares About my Idea?" Specifically Who Cares?
 - Who is my Customer?
 - How do I find these people?

Questions You Need To Answer

- How will I make money so I can have a sustainable venture - this is the Business/Venture Model
- How long will it take to bring my solution to market? What will it cost? What resources will I need - people, money etc.
- Will I need set up some sort of entity to do all this and attract investors and people? Corporation? LLC?

Questions You Need To Answer

- How Do I Keep People from Stealing my Ideas?
- Will I need co-founders and what will be our relationship with each other and the entity?
Founders Agreement?
- How will I negotiate with employees, consultants, investors, strategic partners?

Questions You Need To Answer

- How do I figure out what I don't know?
- What are the "pot holes" in the road that may come up and how will I recognize them and hopefully avoid or minimize them?
- **There are a lot of moving pieces here - Why Do This?**

The Reality

THE WALL STREET JOURNAL.



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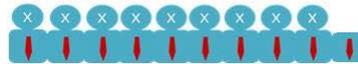
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The Reality



FAILURE RATES OF STARTUPS

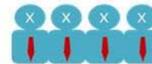
95% FALL SHORT OF MEETING PROJECTIONS



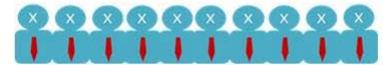
80% FAIL TO SEE PROJECTED RETURN ON INVESTMENT



40% LIQUIDATE AND LOSE MOST OR ALL INVESTMENT



99% OF REASON FOR FAILURE IS **PLANNING & EXPERIENCE**



Data from various sources including Harvard Business School, University of Tennessee Research Center, StatisticBrain.com, and others.

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Perhaps All Is Not Dismal?

- 2009 Kaufman Study
- **25,800** currently active companies founded by MIT alums (120K total)
- Employ about **3.3 million people**
- Annual world revenues of **\$2 trillion**
- equivalent of the **11th largest economy** in the world.

Why This Course?

- Not About Theory -- It's About **DOING**
- Planning and Executing **New Ventures**
 - Not Just Business – Sloan School of Management
- Our Goal – Increase Your Probability of Success so You are in the **10% that Succeed**
- Entrepreneurship is a Lifetime, Incurable Disease
 - Not Fatal, Highly Contagious and Transforming
 - A Full Contact Sport

What Will You Get?

- You invest 6 evenings in this course
- You Get new or enhanced skills:
 - How to Evaluate a venture idea from an impact and economic viewpoint
 - How to figure out Who is My Customer, Who Wants What I Have?
 - Where and How do I get the financial resources to launch and grow my venture?
 - How do I Scale my venture and make it Sustainable?
 - How do I Build and Retain a top notch Team - employees and advisers?
 - How do I Negotiate deals and resolve team conflicts?
 - What are the Legal Pitfalls I need to know about?
 - How do I Pitch my venture idea?

Personal Questions For You

There are a lot of moving pieces here:

- Do I Really Want To Do This?
- Should I Do This?
- Why Am I Doing This?
- Now or Later?
- Is This For Me?

Tonight's Plan

- Who are You?
- Introduce our Teaching Team
- New Ventures - Overview
- Break – Team Building
- Bob Jones – “Finding Your Customer”

Who Are You?

- **Students:**
 - Engineering
 - Science
 - Architecture/Planning
 - Management/Economics
 - Other
- **Non-Student Participants:**
 - Alums
 - Staff
 - Others

Interest Group	# People
AI/Machine Learning	233
Biotech	83
Cleantech	64
Education	102
Energy	82
Enterprise Hardware/Software	90
Environment	73
Fintech	76
Health Care	107
Medical Devices	71
Internet	102
IoT - Internet of Things	74
Mobile Apps	80
Social Entrepreneurship	125
Developing World Problems	94
Other	4

Who Are We?

- Highly UnPaid Volunteer Speakers Who **Have Done/Are Doing** What They Will Be Talking About
- Teaching Assistants
 - Janet Chang
 - Supriya Sanjay

Who Are We?

- **Joe Hadzima**
 - Involved in launching 120+ new ventures
 - Senior Lecturer [MIT Sloan School](#)
 - Former Law Partner, [Sullivan & Worcester LLP](#)
 - Founding Judge, [MIT \\$100K Competition](#)
 - Global Chairman Emeritus, [MIT Enterprise Forum, Inc.](#)
 - Managing Director, Main Street Partners
 - Co-Founder and President, [IPVision, Inc.](#) and Neurostim Technologies

Who Are We?

nutsandbolts-ta@mit.edu

- **Janet Chang**
- 2026 MIT Sloan MBA Candidate
- Deloitte Consulting - Tech, Media, and Entertainment sectors
- Psychobiology, UCLA
- Head of Operations MIT\$100K Competition

Who Are We?

nutsandbolts-ta@mit.edu

- **Supriya Sanjay**
- 2026 MIT Sloan MBA Candidate
- Software engineer at Amazon Web Services - game-based learning tools
- Fulbright-Nehru scholarship in India - co-founded talentboard.io
- Incoming Managing Director of MIT's \$100K Competition

Tonight's Plan

- Introduce our Teaching Team
- **New Ventures - Overview**
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All You Need To Do Is:

- **It is a Really Simple Concept** (whether you are doing a mobile app, a biotech company or a non-profit social developmental company):
 - **Create Value**
 - **Capture/Harvest some of the Value Created (so you can do it again)**

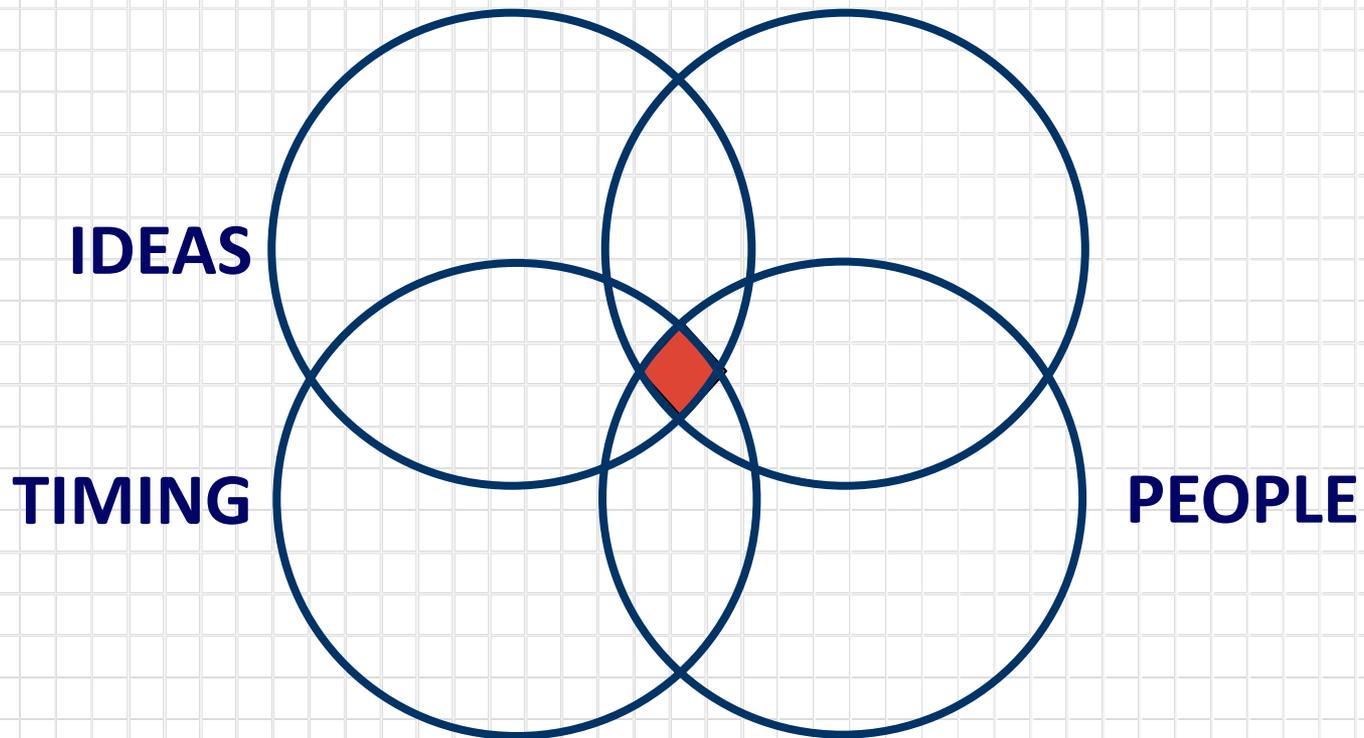
The 3 Whys

- **Why This?**
 - **Why is this Idea Worth Pursuing or Investing In?**
 - Size of Market? Problem Worth Solving?
- **Why Now?**
 - **Why is Now the Right Time to Do This?**
 - Convergence of Opportunity and Solution?
- **Why This Team?**
 - **Why Do I Think These People Will Win?**
 - Prior Experience? Compelling Venture Model?
- **The 4th Why: Why Won't This Work?**

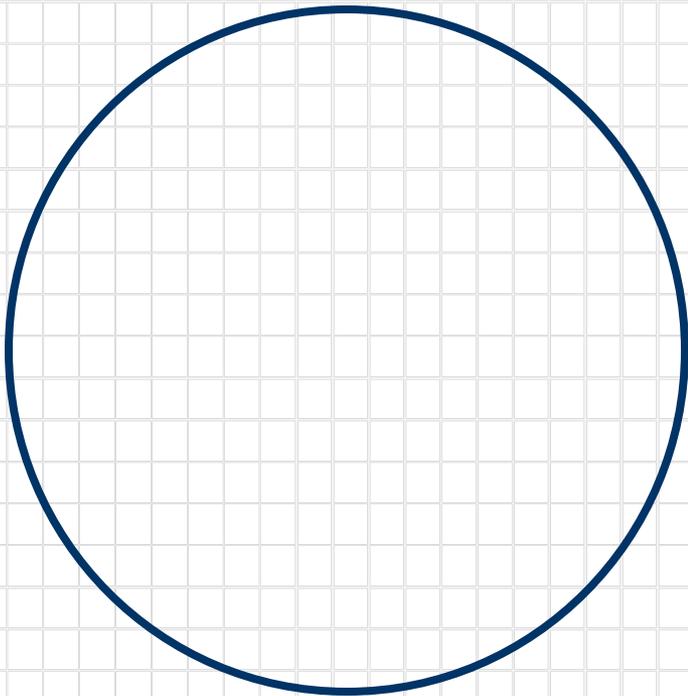
Lessons Learned

- **What Have I Learned and How I Can Help You Succeed?**
- **4 Critical Components for Success**

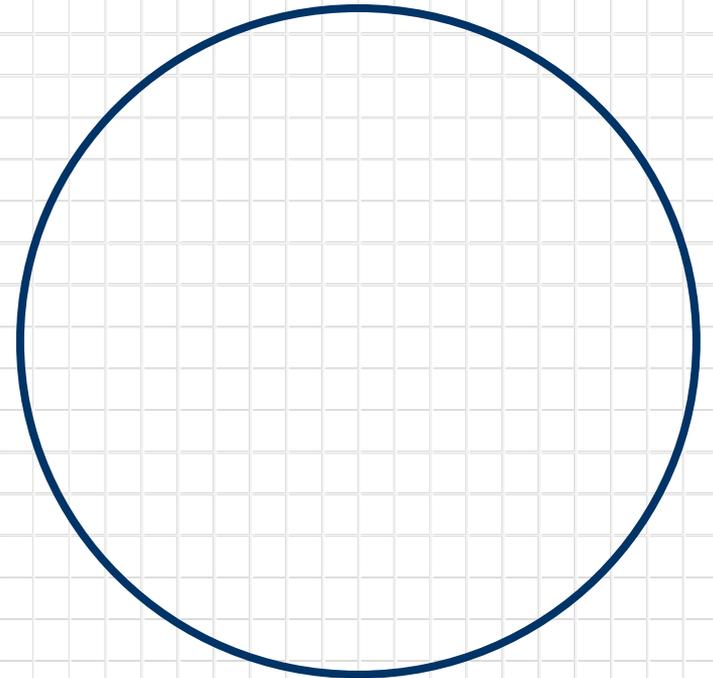
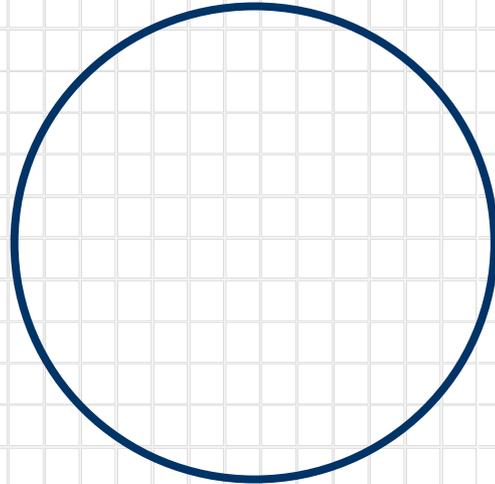
Lessons Learned



What Makes an Idea Valuable?



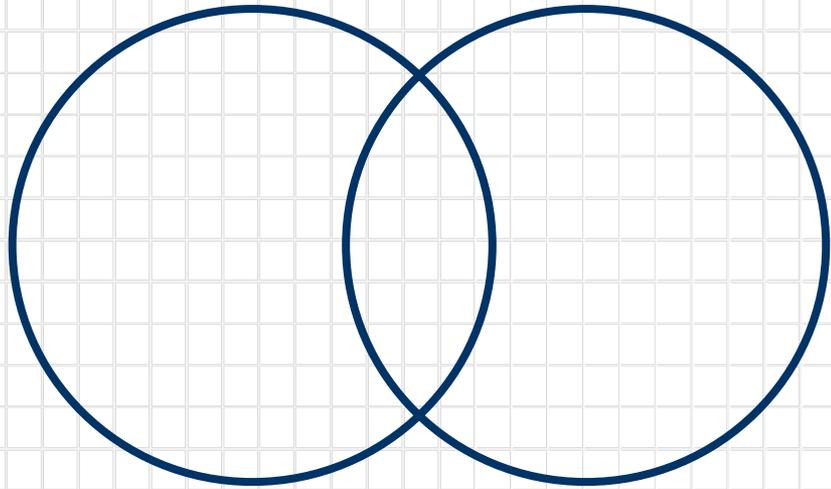
- **Ideas are a Dime a Dozen**
- **Value to Someone – Who?**
- **How Much Value?**
 - **Cost to Produce/Deliver**
 - **How to Capture?**
- **Is it Easily Copied?**



Deals I Passed Up Because of Execution

-ZipCar

-Ebay Precursor



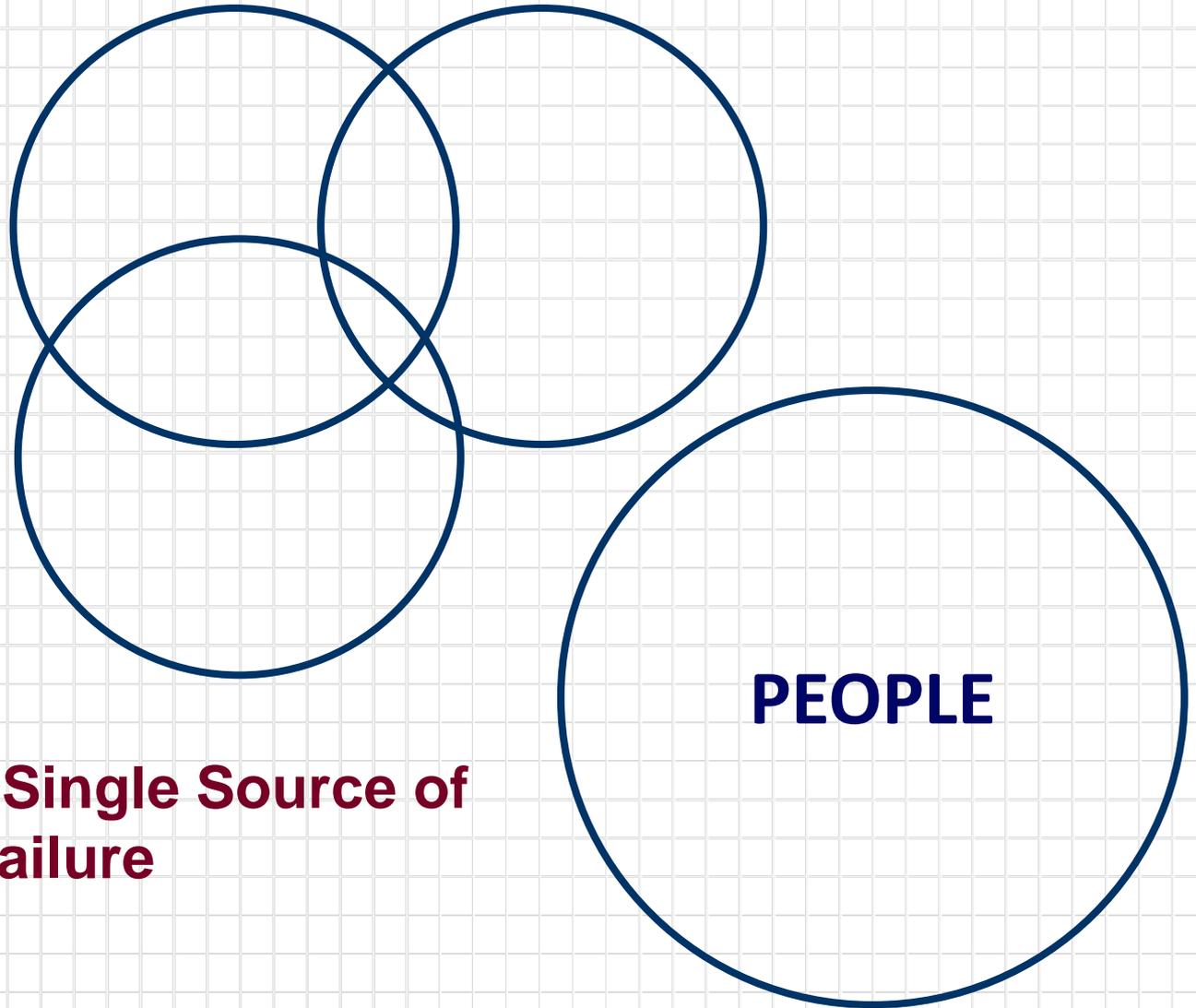


“I have lost more money & time being ahead of the curve”

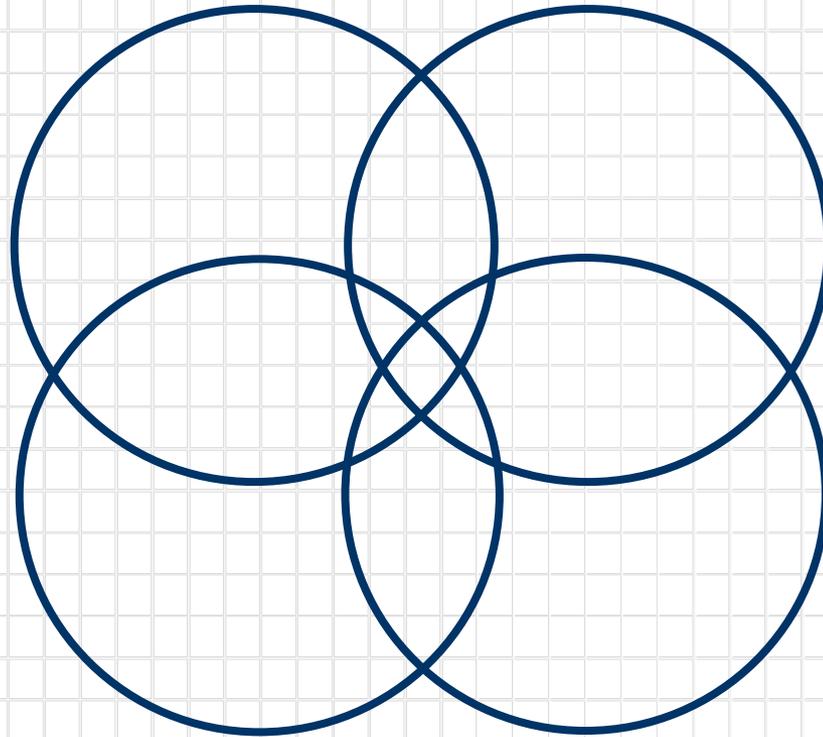
Joe Hadzima

It Can Take a Long Time to be an Overnight Success

- 3D Printing => 25 Years
- Prodigy - \$1B => Amazon
- Fusion => 50+ years and counting

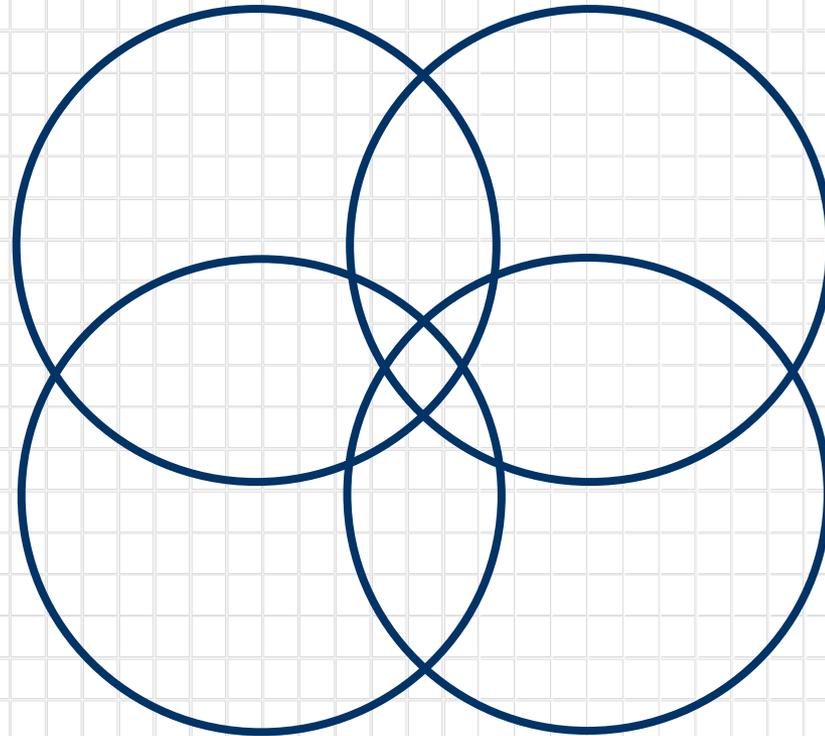


The Biggest Single Source of Failure



PEOPLE

One day Alice came to a fork in the road and saw a Cheshire cat in a tree. **“Which road do I take?”** she asked. **“Where do you want to go?”** was his response. **“I don't know”** Alice answered. Then, said the cat, **“It doesn't matter.”**



PEOPLE

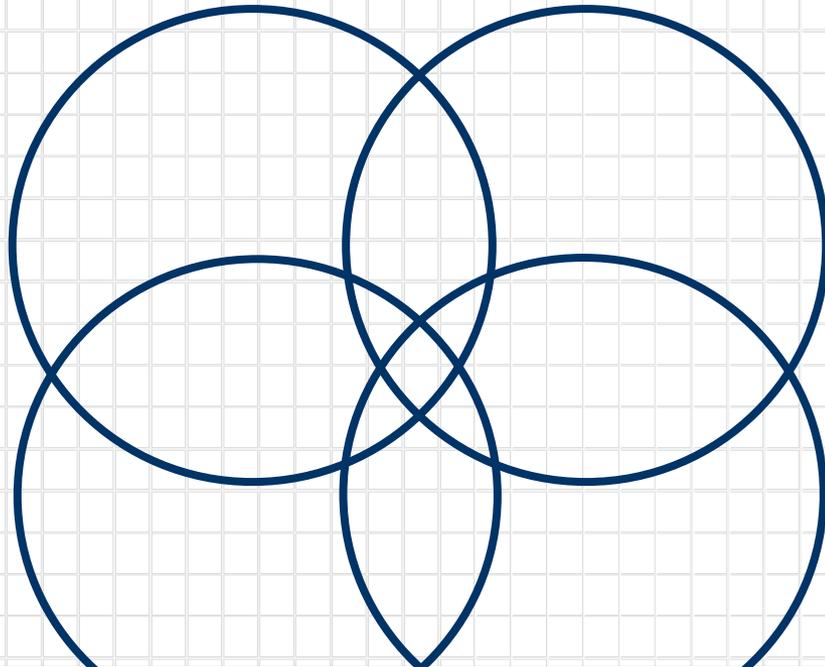
Other People Related Reasons:

-Building Team Before Understanding Customer/Market

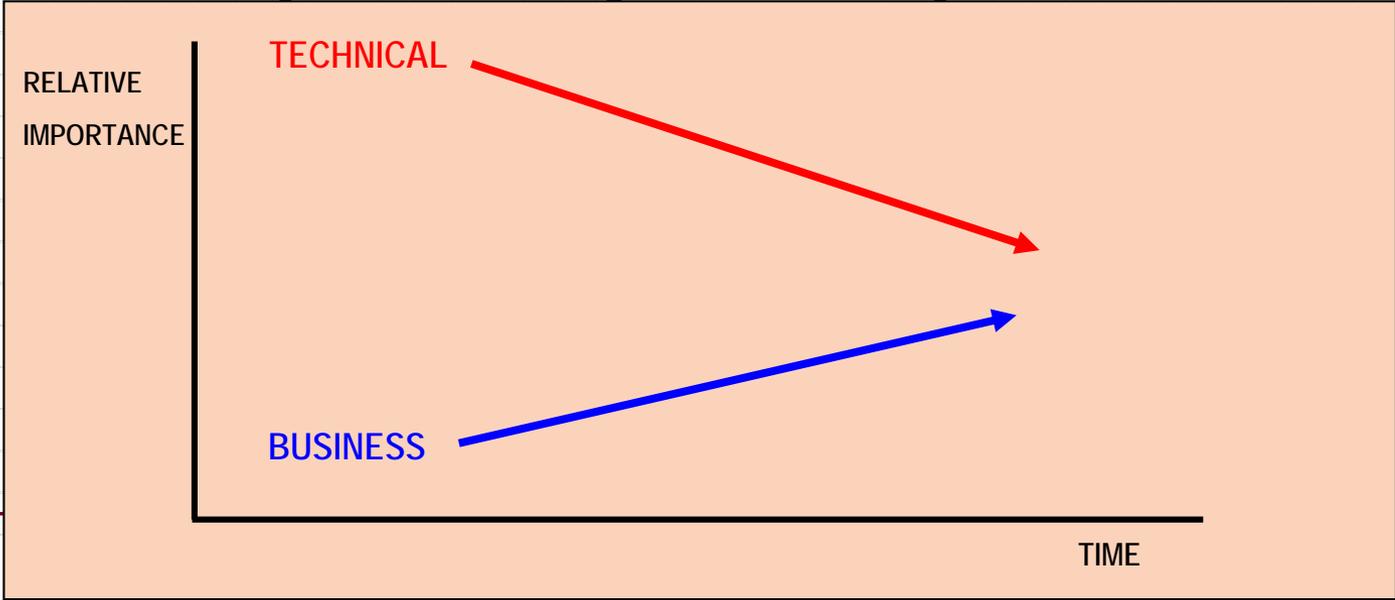
Football Team – Basketball – Painful Pivot

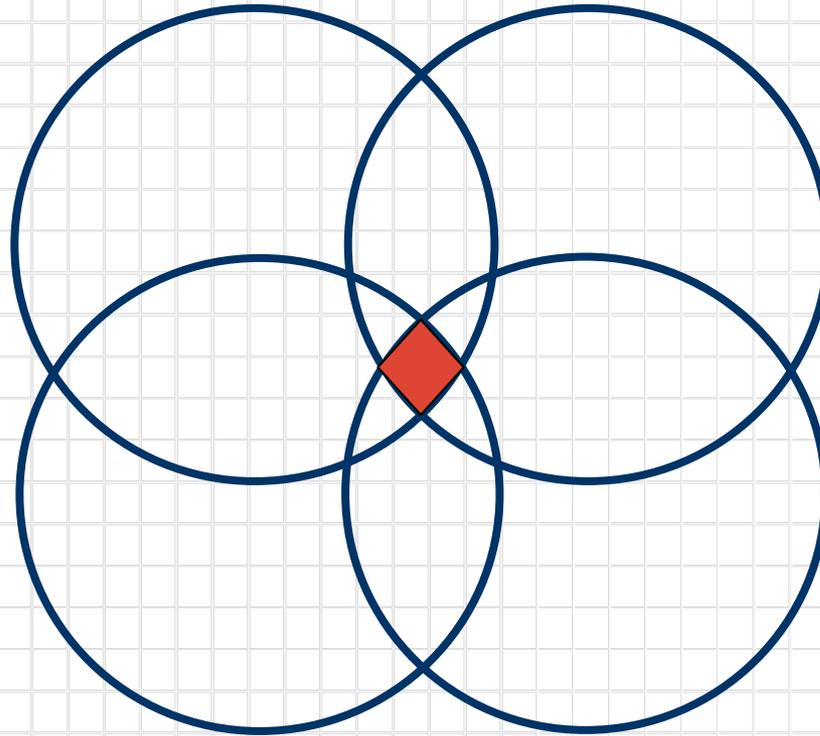
-Not Knowing That You Don't Know

E-Ink: \$15M => \$80M but it took \$160M



PEOPLE





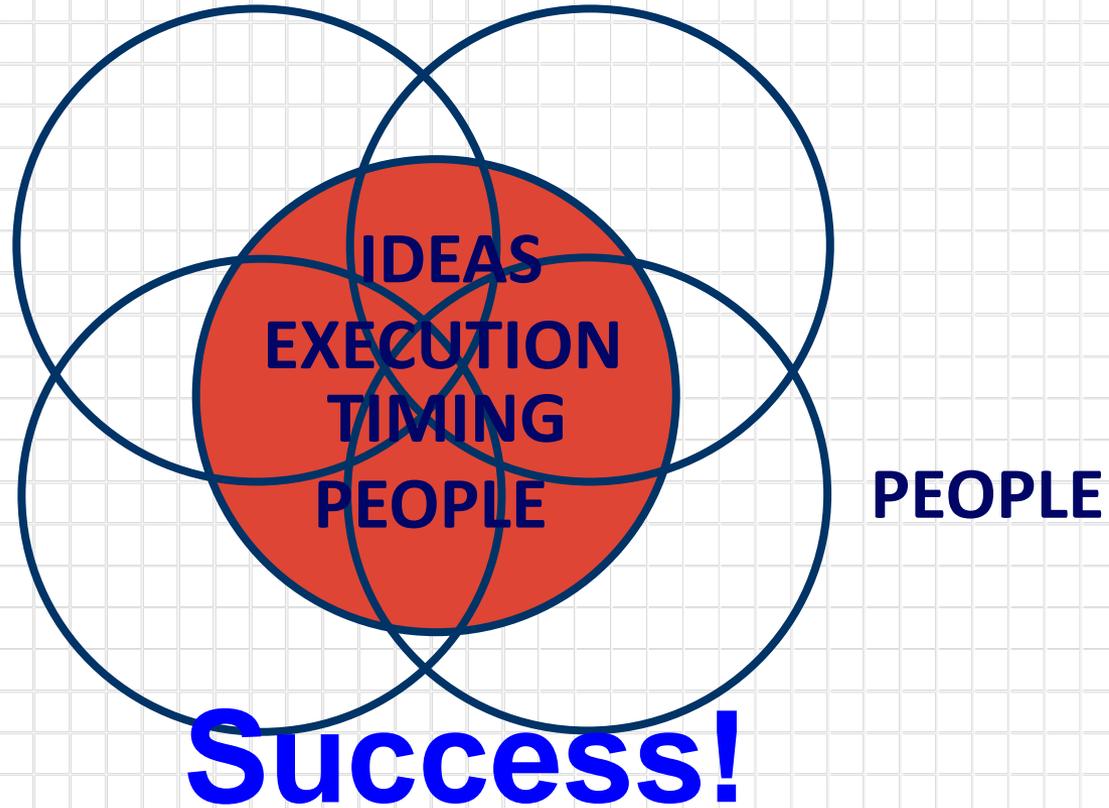
PEOPLE

SpeechCo: All 4 Components – IPO, now in your smartphone

VideoCo: All 4 Components – Acquired in 2 years

HIV-Co: I&E&T not P – Almost failed, IPO, modest success - never reached full potential

NanoCo: I&E not T or P – Great potential, failed



Mission / Vision Statement

- Also known as the **Value Proposition**
- One sentence that says what you do
- e.g. “We help **X** do **Y** by doing **Z**”
- **X** = target audience
- **Y** = goal or problem they want to solve
- **Z** = how you do it

We help **X** do **Y** doing **Z**

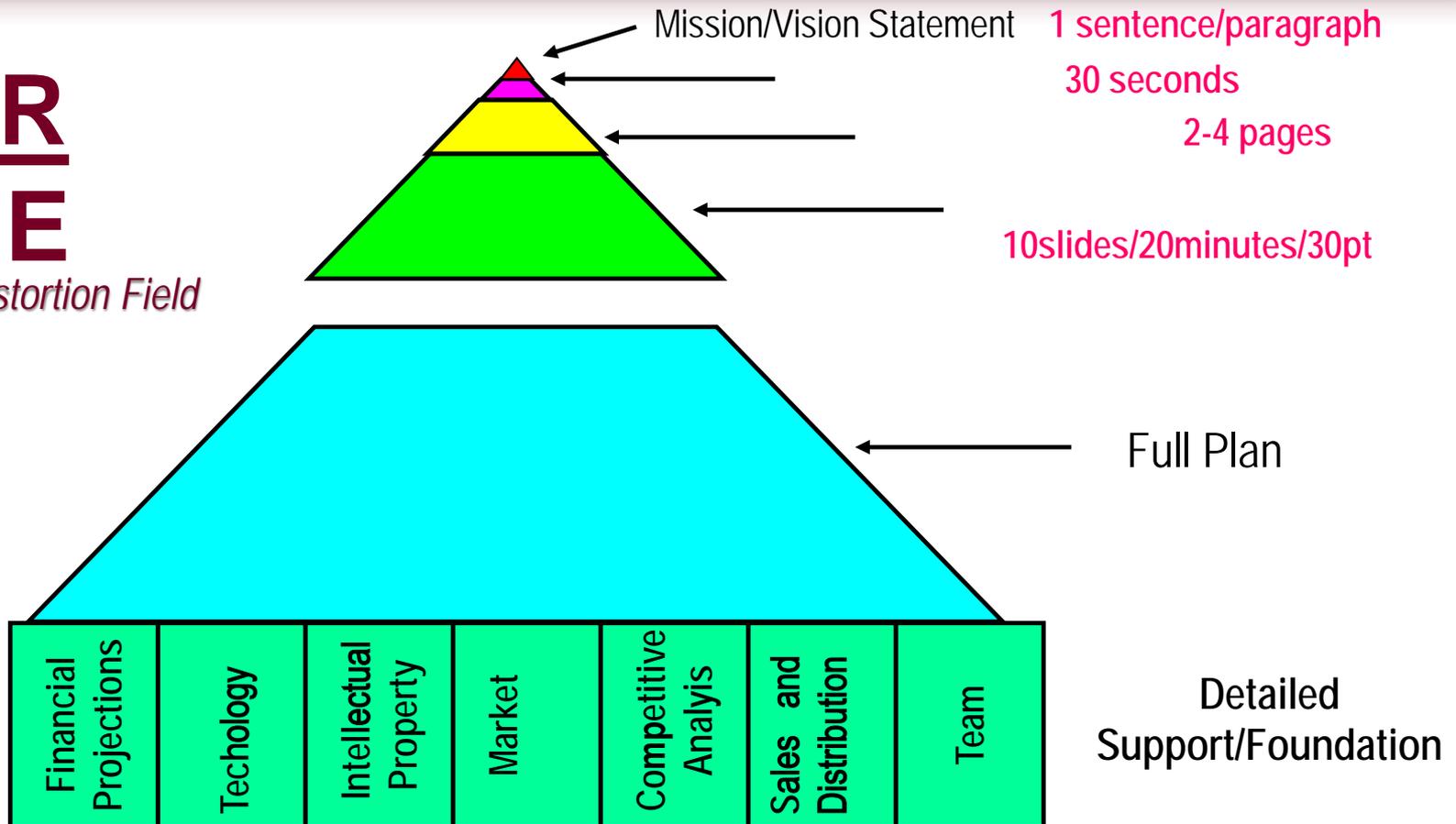
We help people without 3D printers **bring their ideas to life** by providing 3D printing services and a marketplace for 3D-printed products.

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A Supported Vision

$$H = \frac{R}{E}$$

Reality Distortion Field



A Dozen Real Challenges

Vinod Khosla invested in a startup that a Friend of mine co-founded. My friend ask him for guidance/advice. Vinod responded:

But

“Luck Favors the Well Prepared”

We want to help You Be Prepared!

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BREAK Time & Interest Groups

- Interest Group Meet Ups => 10-15 Minutes
 - Look for signs around the room
- When We Come Back
 - Course Logistics
 - Bob Jones – “Finding Your Customer”

Interest Groups - WhatsApp

- Your Interests from email list signup

Interest Group	# People
AI/Machine Learning	233
Biotech	83
Cleantech	64
Education	102
Energy	82
Enterprise Hardware/Software	90
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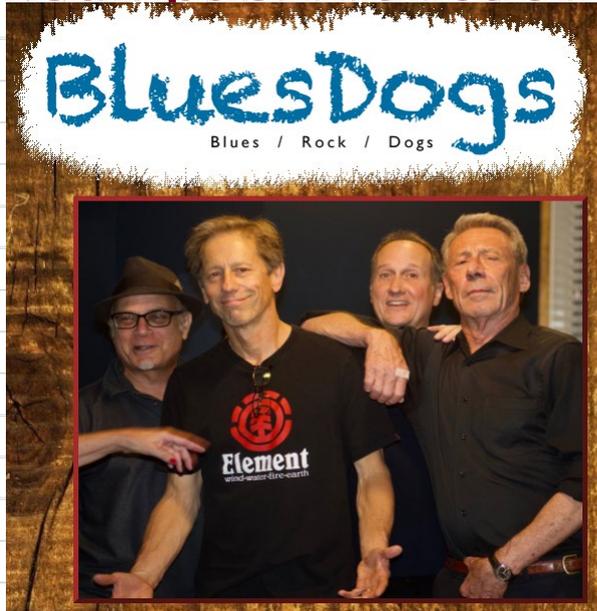
- MIT Course 15.393
- <http://nutsandbolts.mit.edu>
- 3 Credits Pass/Fail
- Class Attendance Required
- Written Requirement
 - Executive Summary or Pitch Deck – Due Friday Jan 31 midnight
 - Of an Idea you are thinking about
 - **Team Efforts Encouraged - Team Formation Google Sheet**
 - See link at nutsandbolts.mit.edu/writingreq.php Complete by 1/25

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Tonight's Plan

- Bob Jones – Founder of the “Consumption Function”



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Next Time

- **“Founder’s Journey”** with Ken Zolot
- **“Business/Venture Models”** with Rich Kivel
- **Check nutsandbolts.mit.edu for details and readings**

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