

TE 250: *From Idea to Enterprise*

Week 1: Intro & Framework

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Course Objectives

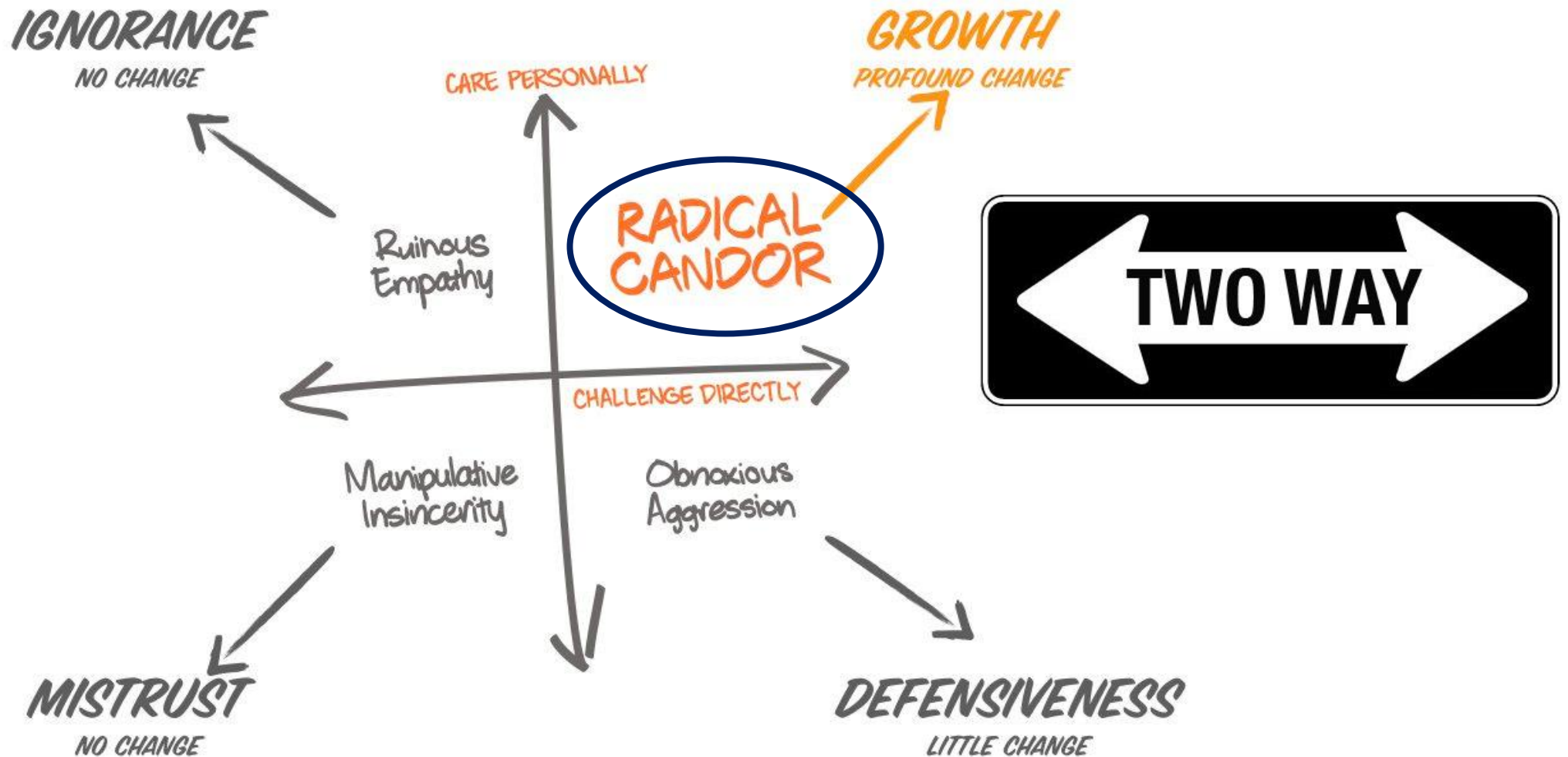
1. Introduce the fundamentals of technology entrepreneurship through hands-on techniques that utilize Lean Startup methodology.
2. Provide an intro to fundamental startup concepts such as formation, financing and building a tech venture.

Week	Agenda (tentative)	category
1	Intro, objectives, why tech entrepreneurship matters	Problems Worth Solving
2	Creativity & Innovation [form teams]	
3	Lean Startup Methods & Customer Discovery	Lean Startups & Product-Market Fit
4	Business Models	
5	Ecosystem Mapping	
6	Market Validation	
7	Midterm: Critical Analysis Project (case study due)	Team Presentation
8	The Team	Venture Formation
9	Company Formation	
10	Intellectual Property	Financing & Building the Venture
11	Financial Statements	
12	Venture Finance & Projections	
13	Pitching	
14	Final Team Pitches	Team Presentations
15	Final Team Pitches (individual project due)	

Hybrid Delivery

- The business world has rapidly shifted to ~~remote~~ hybrid delivery.
- We are engineers, we are business people. We will adapt, learn & iterate.

Respectfully Direct



Radical Candor, by Kim Scott

Group Project

- The course is highly interactive, Participation in classroom discussions is strongly encouraged and attendance is required.
- The capstone is a group project that requires teamwork and time outside of the classroom to interact with potential customers.

Peer Critique

- All team members are expected to demonstrate critical thinking skills and support their conclusions in both written and oral communications.
- Students act as peer reviewers of classmates' presentations.

Grading

topic	weight
Assignments	20%
Midterm	25%
-individual	Case Study
-team	Critical Analysis
Final	35%
-individual	Creative Pitch
-team	Pitch & Canvas
Engagement/ Team Participation	20%

*NO exam



Assignment #1: Getting to Know You

- Who are you?
- Do you have any startup experience?
- Why are you taking this course?
- What are your expectations?
- What do you hope to get out of it?

NB: this is your first assignment!

NB = Nota Bene (Latin = Note Well)

...and a bit about me

Lead Instructor: John Thode, University of Illinois Urbana-Champaign



John is a clinical professor of Innovation, Leadership, and Engineering Entrepreneurship at the Technology Entrepreneur Center of the Grainger College of Engineering as well as an adjunct instructor for the National NSF I-Corps Teams program.

Contact John at jthode@illinois.edu or on [LinkedIn](#) ↗

- NB: It is Not What you Know but Who You Know...
- So what should you do next?

Team Formation

Let's go around the room say your name your major and a fun fact about yourself



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?

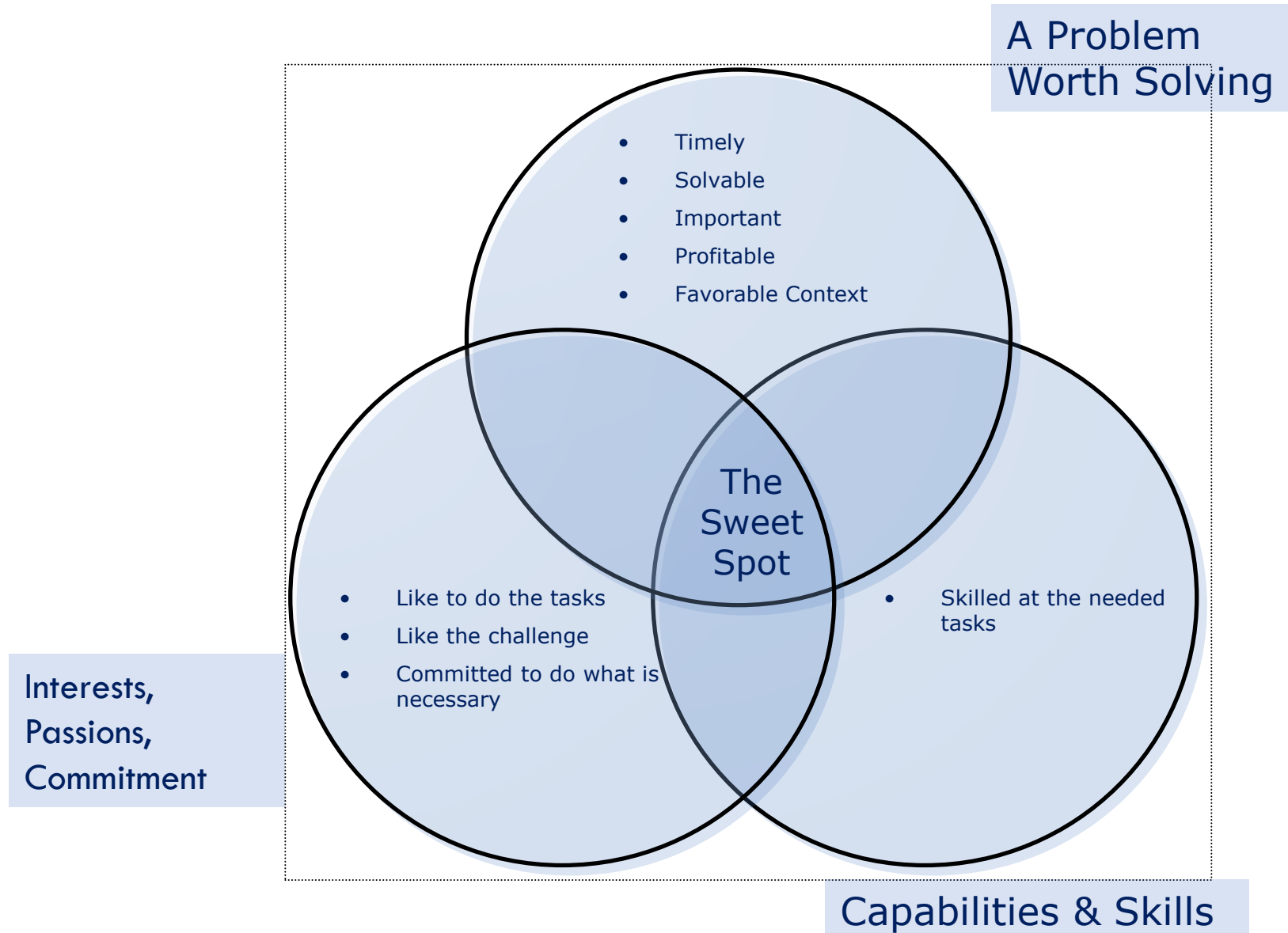
**More startups FAIL
from a lack of customers
than from a failure
of product development**

What must come first?



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

Finding Your Right Opportunity



Problem Statement Canvas

CONTEXT When does the problem occur? [Type here]	PROBLEM What is the root cause of the problem? [Type here]	ALTERNATIVES What do customers do now to fix the problem? [Type here]
CUSTOMERS Who has the problem most often? [Type here]	EMOTIONAL IMPACT How does the customer feel? [Type here] QUANTIFIABLE IMPACT What is the measurable impact? (include units) [Type here]	ALTERNATIVE SHORTCOMINGS What are the disadvantages of the alternatives? [Type here]

Problems Worth Solving

- Group formation will happen over the next 7-10 days
- Teams:
 - ~8 teams of 3-5 people
- Process:
 - Step 1 (due Sunday 8/29, 11:59PM) Discussion Board
 - your ideas: identify “Problems Worth Solving” (at least 1 per student)
 - your skills: what makes you **you**
 - Step 2 (due 9/1, Noon)
 - *Google Form Link with all ideas will be posted on Canvas no later than Monday Noon*
 - *Vote on your top 10 favorite*
 - Step 3 (Class on 9/1)
 - *For the Top 10 be prepared to present a 2–3-minute pitch on your idea, why it is worth solving, why you are the right person to solve it and who else (skills and values) do you need on your team to help.*
 - Step 4 (due 9/1, 11:59 PM)
 - *Google Form Link with all top 10 ideas will be posted on Canvas no later than 9/1*
 - *Vote on your top 3 favorite immediately following class*
 - *First come, first serve*

NB: contributing to the “Discussion Boards” is your second assignment!



Strategies for Brainstorming a Topic

Your Personal Experiences and Interests



What Do You Know?

Are you already an expert at something?



©iStockphoto.com

Don't You Hate It When . .

Have you seen something you wished were fixed!



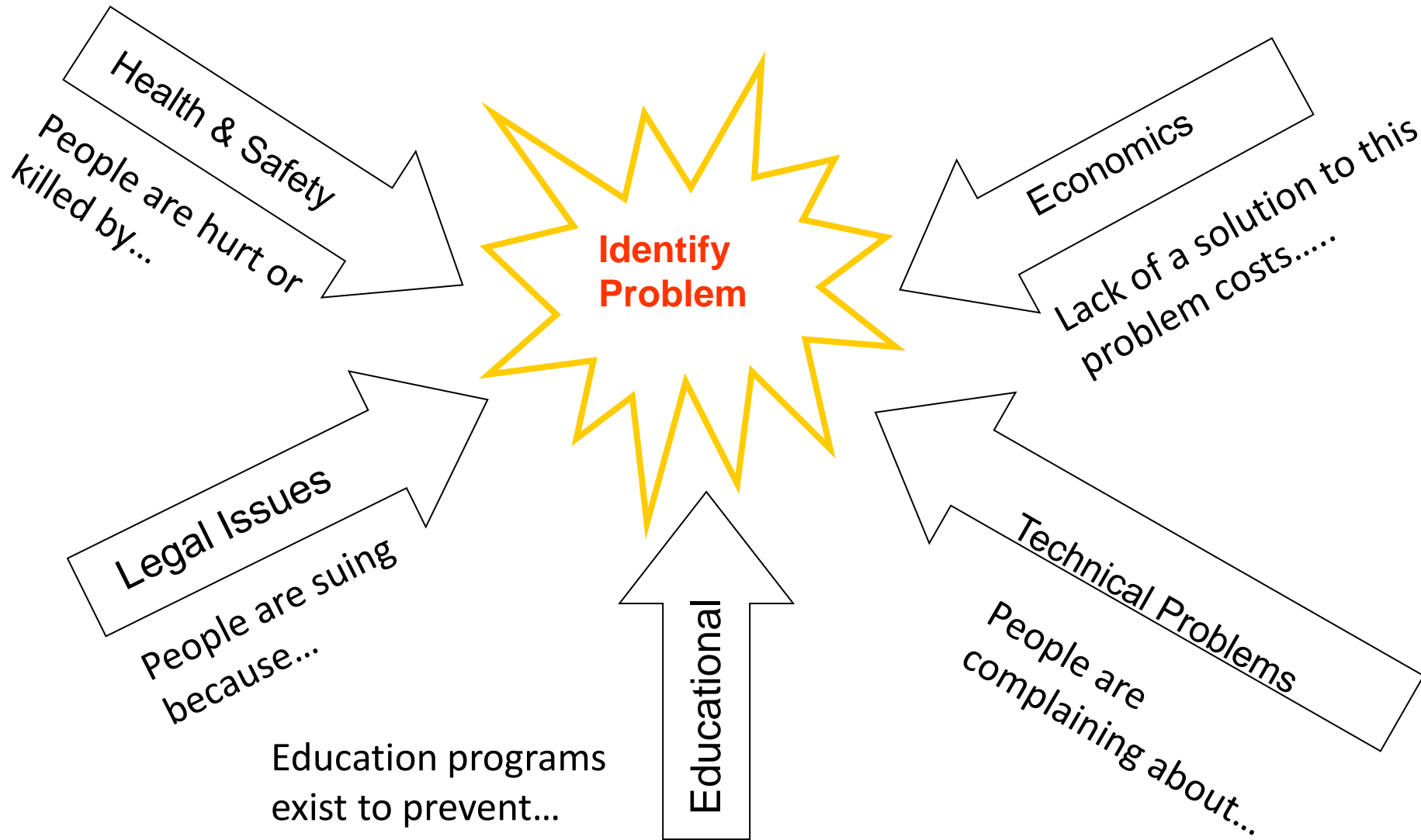
What Do You Love?

Do you want to help people?

Hobbies?

Strategies for Brainstorming

Five Common Attack Paths to Finding a Justified Problem



A Better Question:

Who are you
and
what problem are you trying to solve?
(alt: what do you care about?)

Group Project Ground Rules

- This is a venture creation class, not a technology class. We assume the technology works. Tell us "what you do" not "how you do it."
- Participation on a team is for educational purposes ONLY. It does not give you any right or interest in a company that exists or may later form.
- Company must leverage an innovation-based technology solving a problem that matters. (i.e., a product or service; no consulting)
- Company will require resources beyond your control.

Midterm: Critical Analysis

Team Presentation in-class

1. Market Validation: 1-2 slides
2. Competitive Analysis: 1-2 slides
3. Target Customer Segment(s): 1 slide each
4. Key Value Prop(s): 1 per customer segment
5. Advance/pivot/redirect: 1 slide

The Stine Rule



In the event a class member's phone or other connected device makes an audible alert during class, any other member of the class may exclaim, "**Donuts!**"

Upon being called out, the offending individual shall **provide donuts*** for the **entire class** the following week.

Recognizing that the pastry penalty may create financial hardship for college students on a fixed budget, the offending student may relieve themselves of their obligation by:

1. Replying to the caller with the phrase "**I love you!**"

and...

2. **Tell a joke** to the class (must make me laugh).

In the event an offending student fails to complete either of the above obligations, s/he will be identified as **least favorite student** in the class.

Emergency alerts of any kind shall be exempt from this rule.

*Donut holes do NOT count. Don't even try it.

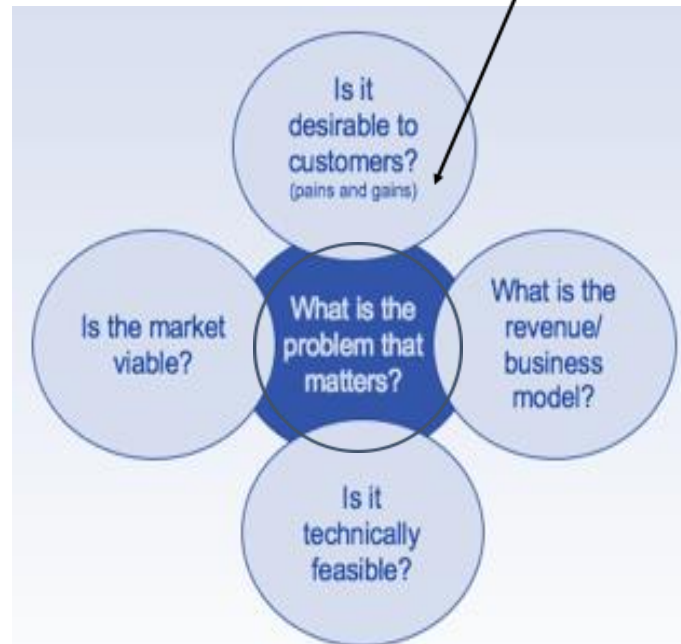
Small Group Discussion Questions

What is innovation?

What is innovation?

Innovation “sweet spot”

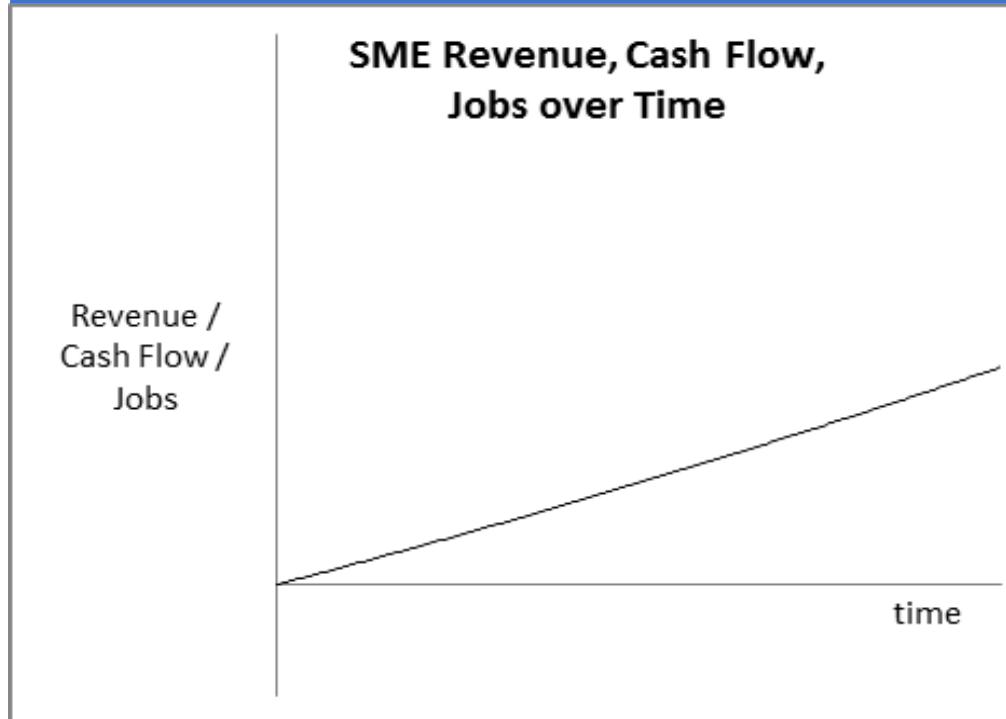
Innovators translate ideas and IP into **customer solutions** that generate **economic and/or social value**.



Definition of Innovation

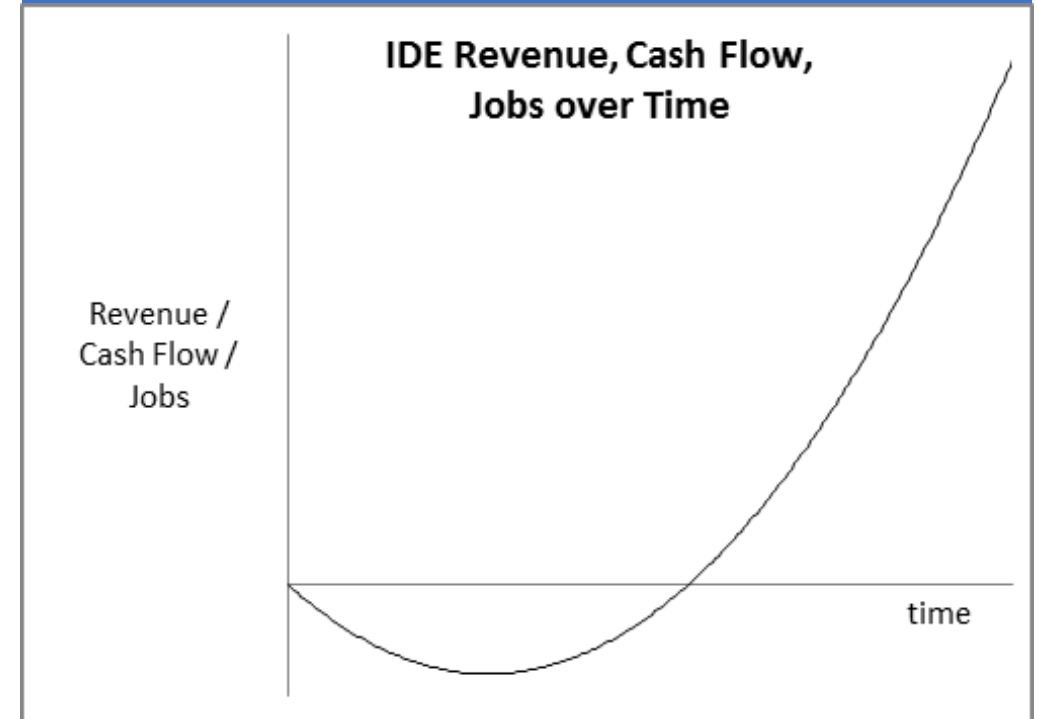
*Innovation = Invention * Commercialization*

SME (Small Medium Enterprise)
Local Market Focus
Restaurants, Dry Cleaners, Services



- Δt is short
- Linear growth (capped)
- Less investment required

IDE (Innovation-Driven Enterprise)
Global Market Focus
Products w/ Innovation at Core



- Δt is long
- Exponential growth (uncapped)
- A lot of investment required

Small Group Discussion Questions

What is entrepreneurship?

-and-

What is an entrepreneur?

What is entrepreneurship?

Entrepreneurship (as I define it) is the act of identifying and exploiting an opportunity without being limited by resources currently under control.

What is an entrepreneur?

Entrepreneurs are people who identify and pursue:

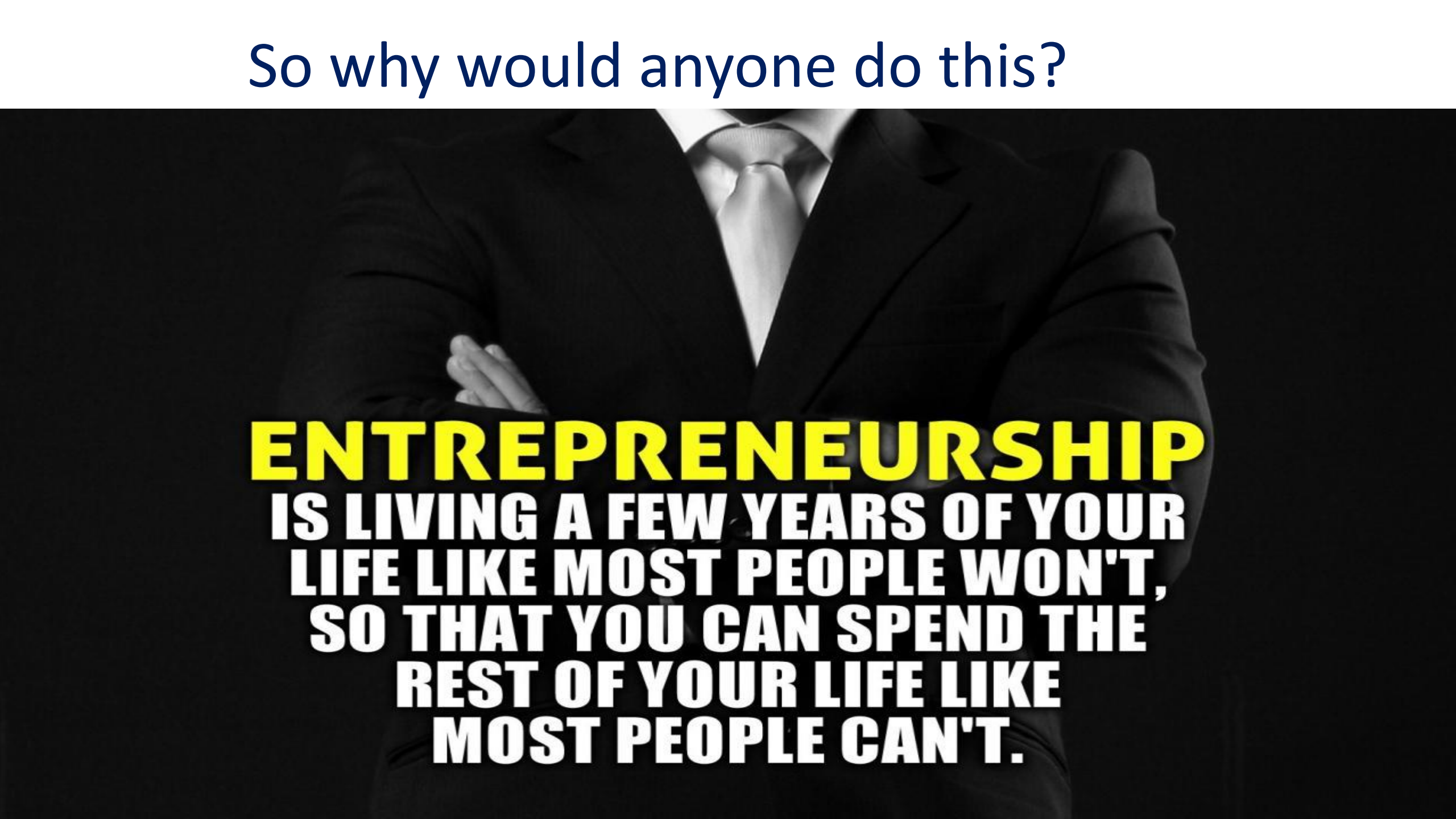
- solutions among problems
- possibilities among needs
- opportunities among challenges

The entrepreneur provides the creative force in order for free enterprise to work.

Entrepreneurs strive to make a difference in our world and contribute to its betterment.

They are also motivated by achievement, independence, and the accumulation of wealth.

So why would anyone do this?

A black and white photograph of a person wearing a dark suit, white shirt, and light-colored tie. Their arms are crossed over their chest. The background is dark and out of focus.

ENTREPRENEURSHIP
IS LIVING A FEW YEARS OF YOUR
LIFE LIKE MOST PEOPLE WON'T,
SO THAT YOU CAN SPEND THE
REST OF YOUR LIFE LIKE
MOST PEOPLE CAN'T.

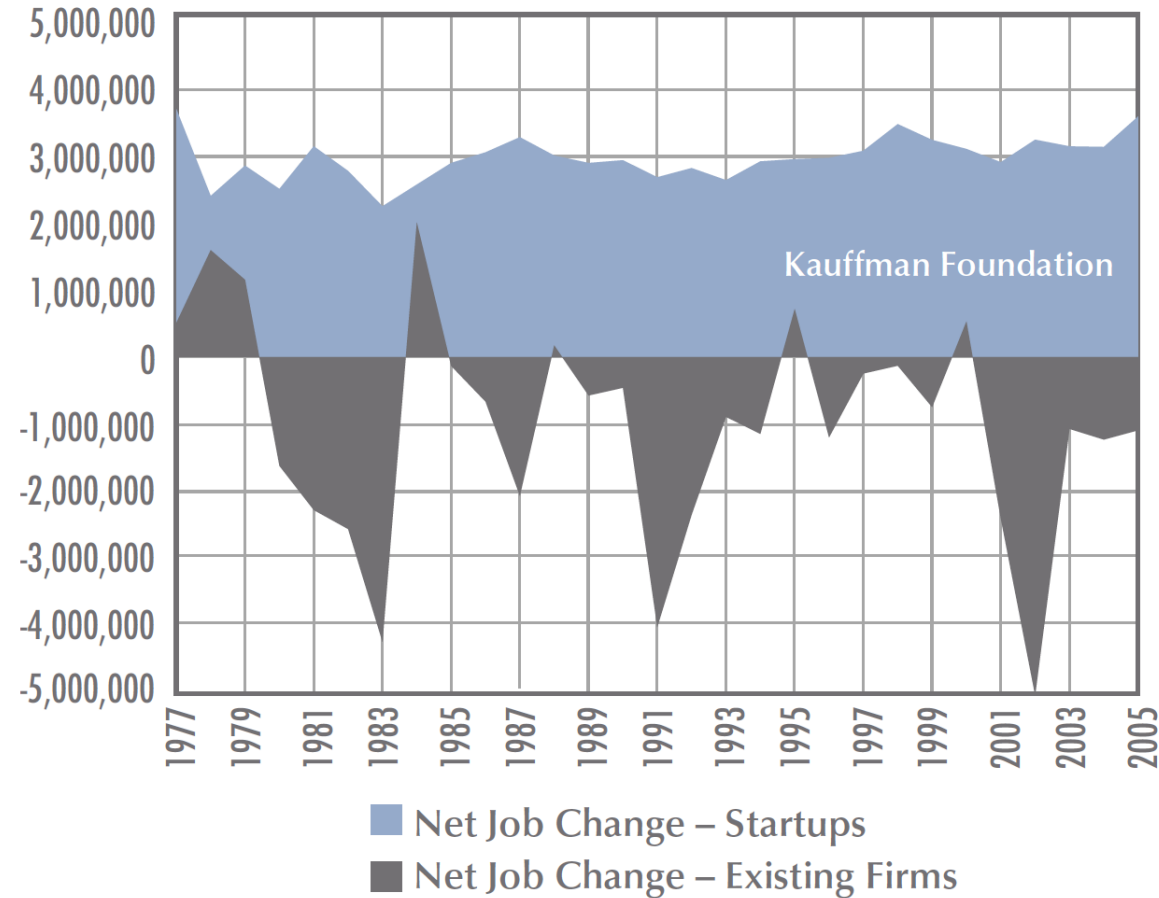
Why does it matter?

- Small firms might be more likely to produce “radical” innovations
 - Henderson (1993)
 - Anderson and Tushman (1990)
 - Tushman and Anderson (1986)
- “.. are responsible, since 1945, for:
 - Over 50% of all innovations
 - 67% of inventions
 - 95% of all radical innovations”

National Commission on Entrepreneurship, 2002 from Timmons

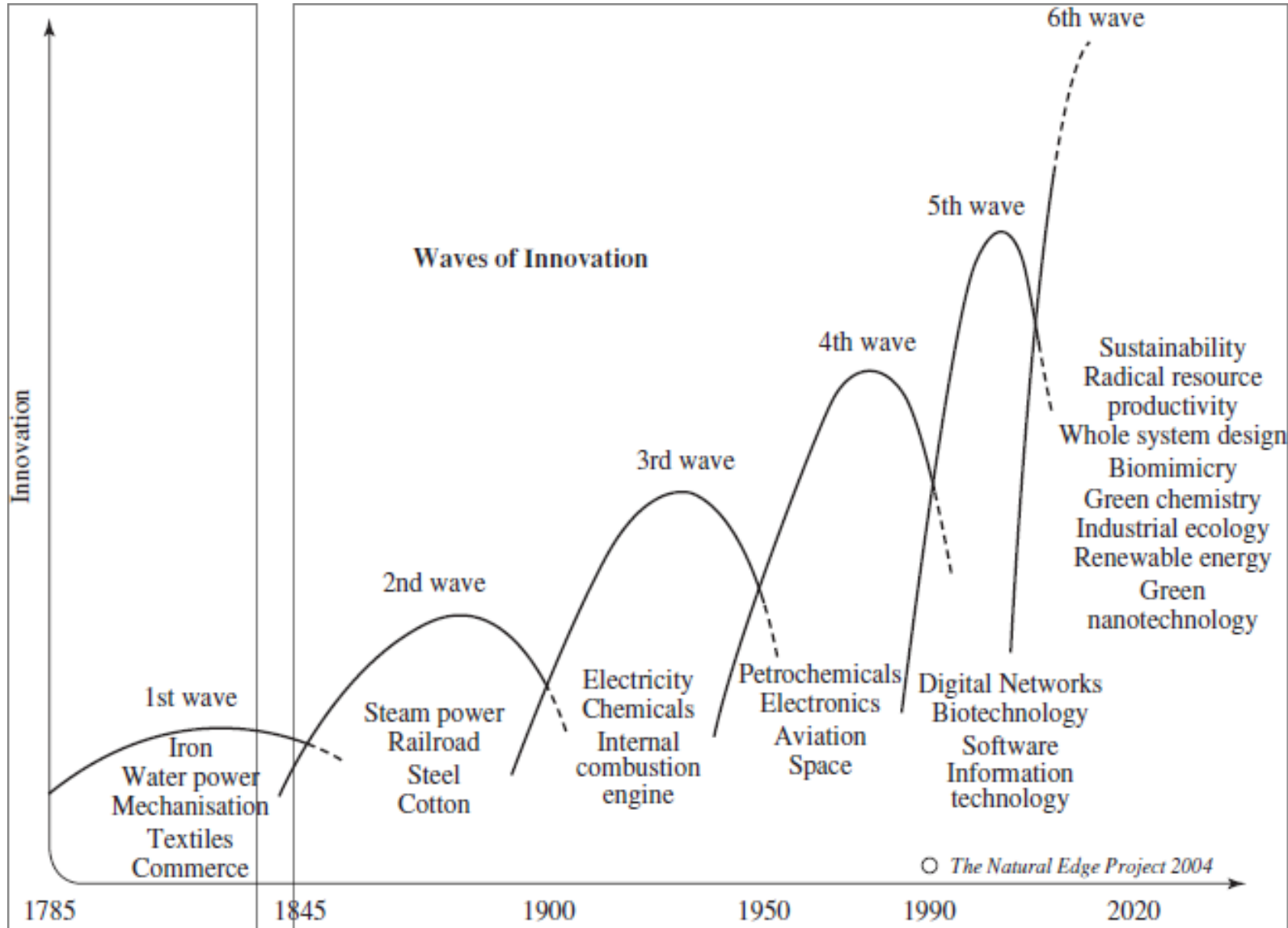
Why does it matter?

Figure 1:
Startups Create Most New Net Jobs in
the United States

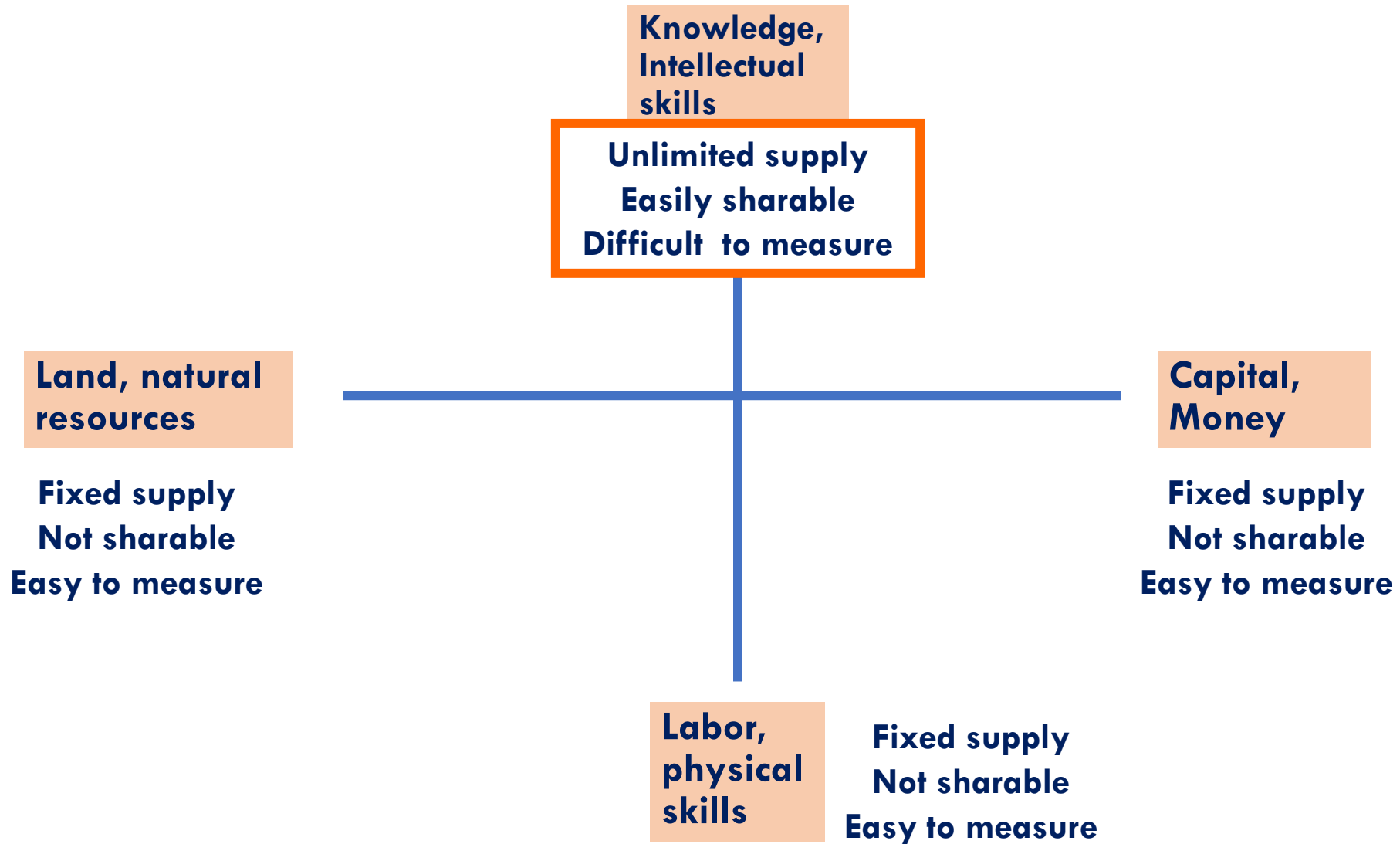


Source: Business Dynamics Statistics, Tim Kane

Why does it matter?



Why TECH ventures?



Small Group Discussion Question

- *Can entrepreneurship be learned?*
- *Why should engineering, science, and humanities (i.e. non-business) students study entrepreneurship?*

Attributes of E'neurs

- Entrepreneurship is a *process*: not a single act
- Entrepreneurs are made; *not born*
- Entrepreneurs vary considerably in their *capabilities*, which can be improved significantly through experience and training.
- *Existing organizations* provide an environment that has a major—positive or negative—impact on the creative and entrepreneurial drive of their members.
- Entrepreneurs are *not* risk seekers; they are *risk managers*.

Personas

Exploring	Ready-to-Go	RTG - 1	Intrapreneur	Amplifier
Interested but has no driving idea or team; is in exploratory mode; starts here but will migrate to another state or out of entrepreneurship	Chomping at the bit & just wants help to get going – has idea, tech &/or core of team	Wants to be in a start up but does not want to be a lead (at least at this time)	Wants to be an entrepreneur in an existing non-startup organization	Interested in understanding enough to successfully promote in their org (e.g., gov, corp, family business) but is not the direct venture creating entrepreneur

Exercise

- Break up into small groups.
- Each student name an entrepreneur and/or startup you admire and why.
- ID at least 5 common characteristics among those selected by the group members

Technology Entrepreneur Center



SocialFuse

Pitch your idea, find teammates, and network!

WED., SEPT. 15 | 4-6pm

RSVP | go.illinois.edu/socialfuse



Startup City Scholars Kickoff Event

Pitch for cash prizes, work on finding teammates for the Grainger Engineering Startup City Scholars Spring 2022 semester in Chicago, or just attend to learn more.

AUG. 31 | 5-6:30pm | VIRTUAL EVENT

RSVP | go.illinois.edu/scs



Innovation Expo

A resource fair for entrepreneurs, designers, and innovators!

WED., SEPT. 1 | 11am-1pm

ISR MAIN LEVEL

RSVP | go.illinois.edu/innovationexpo