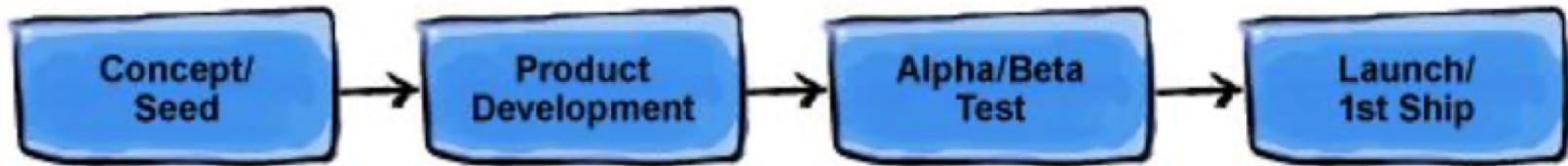


More Than Coding – Part I: Problem Solving & Idea Generation

Shan-Hung Wu & DataLab
CS, NTHU

The Product Development Flow

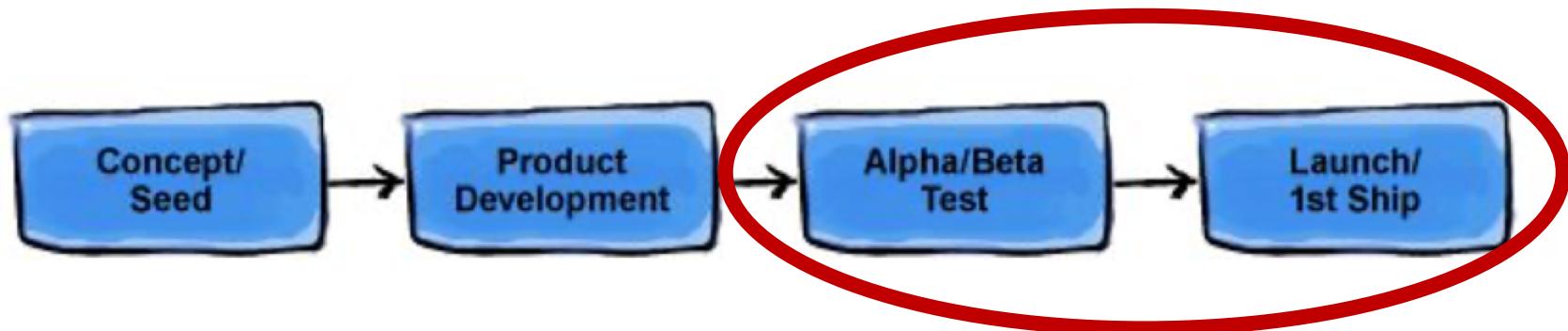


- This is the path to *disaster*



What's Wrong?

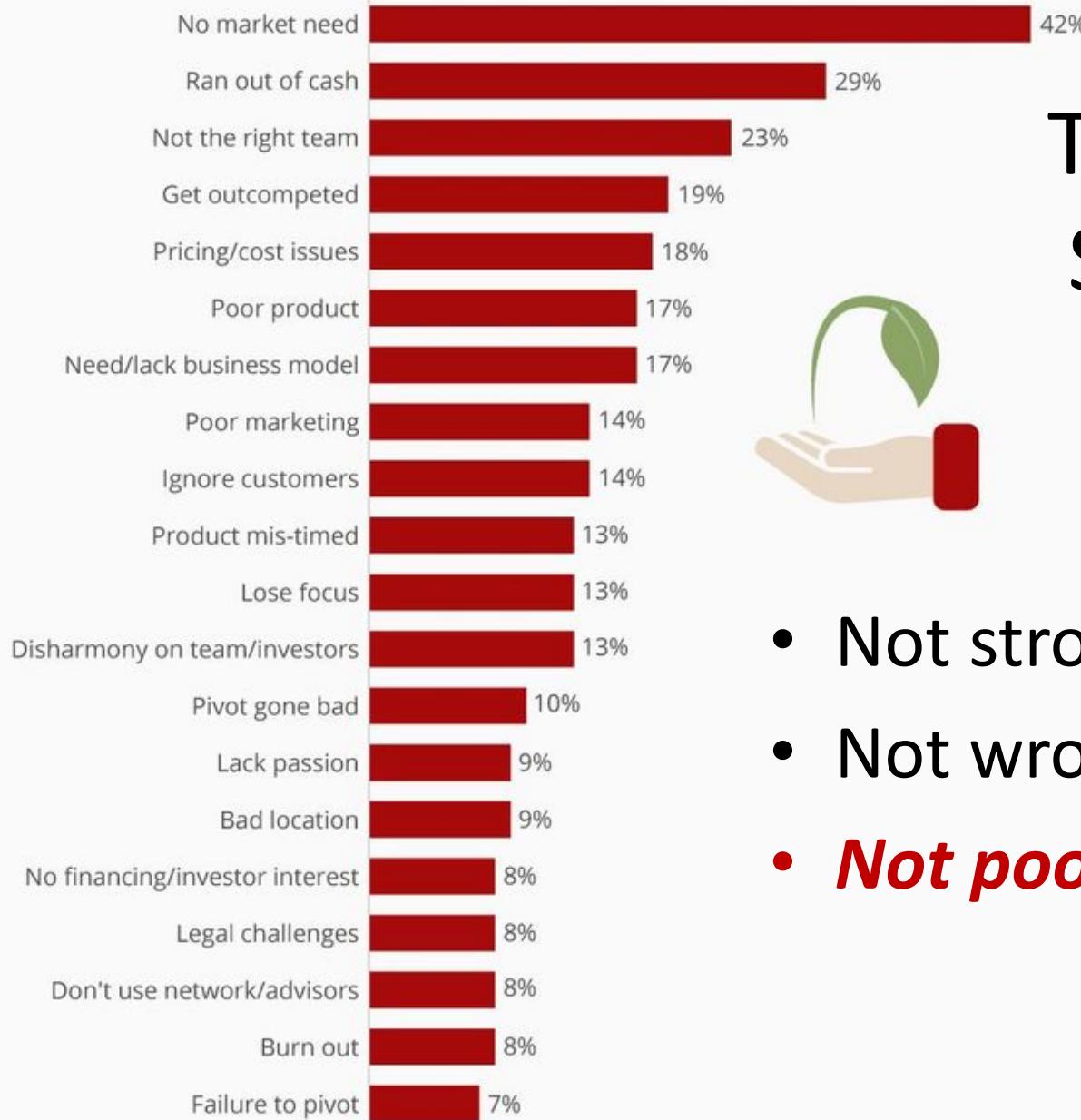
- No, your user/customer will ***not*** come automatically



Parallel sales & marketing?

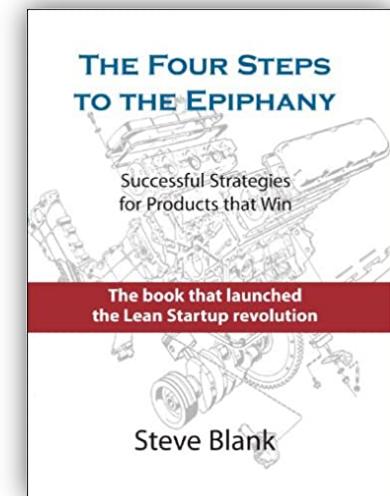
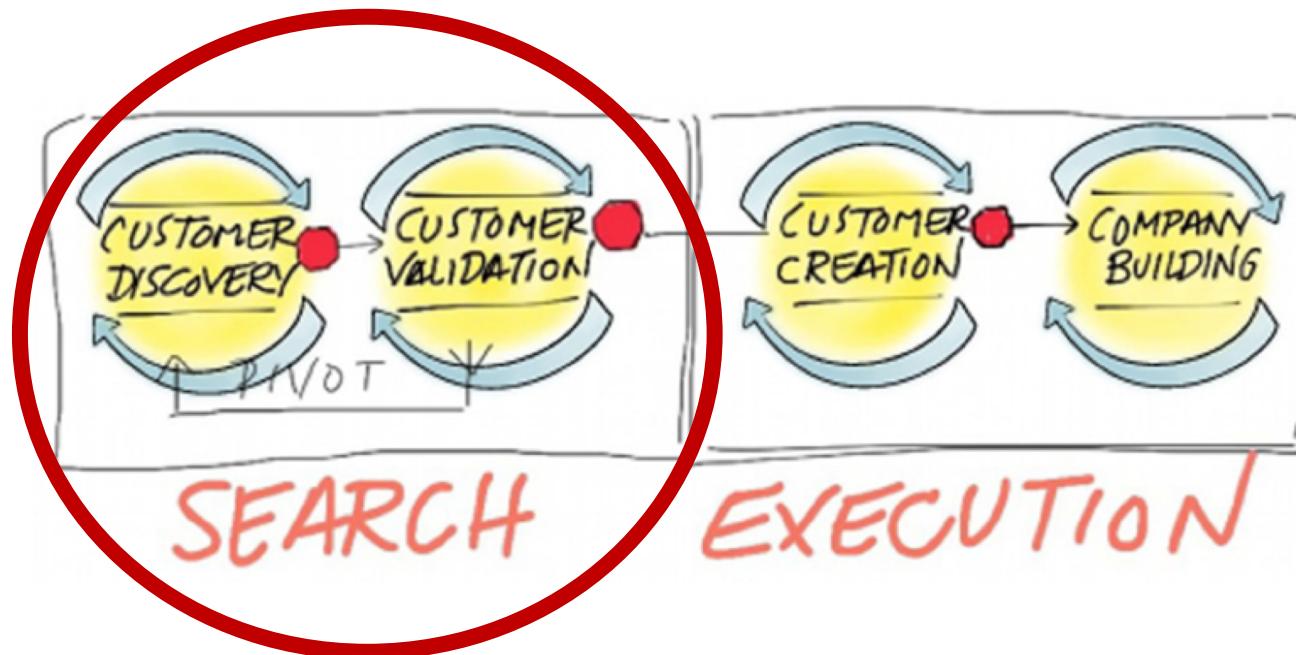
- Even worse, you waste time and \$

Tops Reasons Startups Fail



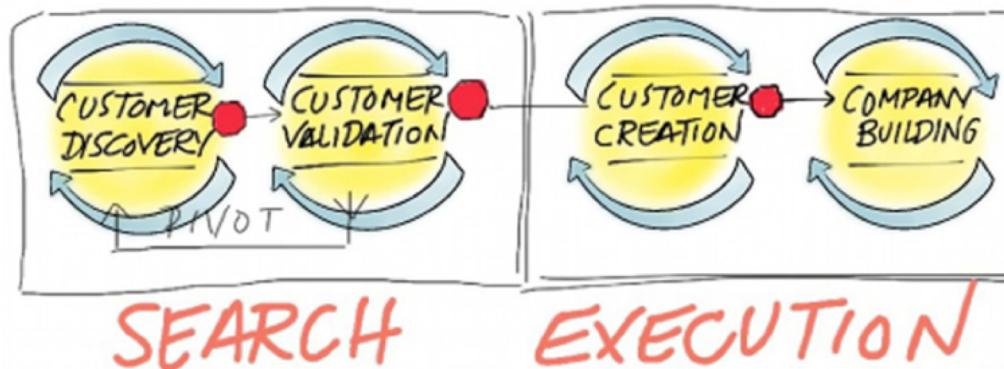
- Not strong competitors
- Not wrong pricing
- ***Not poor product***

The Customer Development Flow



- In this course, we focus on the first part
 - Iterate, or pivot

Outline



- Part 1: Problem solving
- Part 2: Idea validation
- Execution? 來跟我做專題吧 😘

How to identify a good problem to solve?

Find a problem that you think
existing solutions suck.

Then solve it yourself!

Or, read this [essay](#)

by Paul Graham, founder of Y Combinator

Tips

- What bothers you or people around you?
 - Make ***few*** people ***very*** happy
 - Try to understand some ecosystems
-
- Check out Product Hunt for inspirations
 - Stay away from “platforms”
 - To have a good idea, you need many bad ones

Let's say your roommate has a
problem of getting up late...

5 Whys (by Sakichi Toyoda)

- Why does he get up late in the morning?
 - Because there's no need to get up early in the morning
- Why there's no need to get up early?
 - Because he has no class in the morning
- Then why did he set up an alarm before sleep?
 - Because he “wants” to get up early
- Why can't he be woken up by the alarm?
 - Because the alarm gives **no motivation!**

Rough Idea:

To make an alarm app that wakes
people up more effectively and *happily*

Effectiveness?
Happyness?

Refined Idea: Money Alarm

1. Let a user pledge a *price* when setting up an alarm before going to bed
2. If failing to get up on time tomorrow, the user has to pay the price
3. If succeeding, the user win some money from the other users who failed

Is this a good idea?

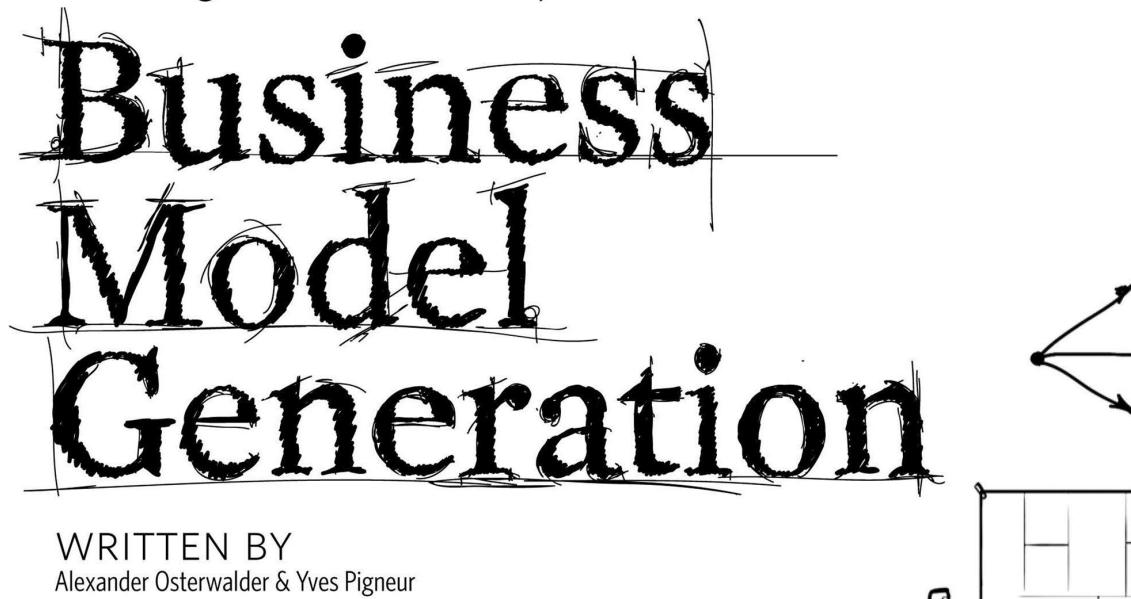
Can you really help your users?

Can you make money?

Business Plan is ***Not*** Our Goal

- This is not an entrepreneurship course
- But if you are interested...

You're holding a handbook for visionaries, game changers, and challengers striving to defy outmoded business models and design tomorrow's enterprises. It's a book for the...



The Lean Canvas

- Idea: Money Alarm

| | | | | |
|--|---|---|---|---|
| PROBLEM <i>List your top 1-3 problems.</i> | SOLUTION <i>Outline a possible solution for each problem.</i> | UNIQUE VALUE PROPOSITION <i>Single, clear, compelling message that states why you are different and worth paying attention.</i> | UNFAIR ADVANTAGE <i>Something that cannot easily be bought or copied.</i> | CUSTOMER SEGMENTS <i>List your target customers and users.</i> |
| EXISTING ALTERNATIVES <i>List how these problems are solved today.</i> | KEY METRICS <i>List the key numbers that tell you how your business is doing.</i> | HIGH-LEVEL CONCEPT <i>List your X for Y analogy e.g. YouTube = Flickr for videos.</i> | CHANNELS <i>List your path to customers (inbound or outbound).</i> | EARLY ADOPTERS <i>List the characteristics of your ideal customers.</i> |
| COST STRUCTURE <i>List your fixed and variable costs.</i> | REVENUE STREAMS <i>List your sources of revenue.</i> | | | |