“ZERO to One”
by Peter Theil

Book Review & Summary
Sanjeev Verma
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“Zero to One is about how to build companies that create new things”
Perils Of Globalization or Sameness

INDIA 40% of Total World Population  China

Pollution-hit Delhi to ban drivers on alternate days

AAP Govt. Turns to Startups To Solve Delhi’s Pollution Woes

China’s Red Alert on Air Pollution Puts Focus on Regulators

Technology (0 to 1)

Globalization (1 to n)

Vertical intensive progress

Horizontal extensive progress

Two Types of Progress

Technology vs. Globalization

Technology Invention Vertical progress Creating new things

Globalization Scaling Horizontal progress Copying existing things
GLOBALIZATION
(Other Humans)
Substitution
“The World is Flat”
Mimetic Consumer Competition

TECHNOLOGY
(Better Computers)
Mostly Complementary
Machines don’t demand:
all value goes to people

SUPPLY
(of labor)
DEMAND
(for resources)
Global Resources Are Scarce:

- Sum total of resources is constant
- Globalization without new technology is unsustainable.

How to use limited resources efficiently for the benefit of mankind?

History of Globalization & Technological Advancement

- History
  - 1815-1914
    - Rapid Tech Development & Rapid Globalization
  - 1914 (World War-I) – 1971 (Kissinger’s trip to reopen relations with China)
    - Rapid Tech Development but not much Globalization
  - 1971---
    - Limited Tech Development limited to IT with Rapid Globalization
"The 1st step to thinking clearly is to question what we think we know about the past"

"if you can identify a delusional popular belief, you can find what lies hidden behind it; the contrarian truth"

4 Big Lessons from Dot-Com Crash vs Zero To One

**Dogma after Dot-Com Crash**
- Make Incremental Advances
- Stay Lean and Flexible
- Improve on the Competition
- Focus on Products-Not Sales

**Zero To One**
- It is better to risk boldness than triviality
- A bad plan is better than no plan
- Competitive markets destroys profits
- Sales matter as much as product

"Iteration without a bold plan won’t take you from ‘0’ to ‘1’"

"Leanness is a methodology, not a goal"
CHALLENGE:

Both imagine and create new tech that can make 21st century more peaceful and prosperous than the 20th century.

Zero-To-One: Startup Thinking

• New Ideas Tend To Come from Startups
  – Bunch of People come together with a mission to change the world for better:
    • Founding Fathers in Politics
    • Royal Society in Science
    • Fairchild Semiconductor’s traitorous eight

• Mantra for the success of Startup:
  “Monopoly”
Monopoly versus Perfect Competition

**Monopoly**
- “Monopoly” is the kind of company that is so good at what it does that no other firm can offer a close substitute.
- Benefits everybody and sustainable profits for the creator.
- All happy companies are different each one earns a monopoly by solving a unique problem.

**Perfect Competition**
- “Perfect Competition” is about making undifferentiated product. In long run, no company makes an economic profit.
- No profit for anybody, no meaningful differentiation and struggle for survival.
- All failed companies are same, they failed to escape competition

How to Create Monopoly?

- Characteristics:
  - Proprietary Technology
  - Network Effect
  - Economics of Scale
  - Branding
Monopoly: Proprietary Technology

• Proprietary Technology
  – Rule of Thumb
    • Proprietary Tech must be at least 10 times better than its closest substitute in some important dimension
      – Example: Amazon vs Barnes & Noble
      – Counter Example: Solyndra—cylindrical cells are $1/\pi$ as efficient as flat ones. Solar cells efficiency has only moved from 6 % in 1954 to 25 % now.

Monopoly: Network Effect

• Network Effect
  – Network Effects make a product more useful as more people use it.
    • Paradoxically Network Effects businesses must start with a small niche market with no competition. This is why Network Effects Monopoly are hardly started by MBA types.
    • Example: Facebook started with just Harvard Graduates.
Monopoly: Economics of Scale

• Economics of Scale
  – Monopoly business gets stronger as it gets bigger—
a good startup should have the potential for great scale built into its first design.
    • Software Startups enjoy dramatic economics of scale since the marginal cost of producing another copy is minimal.

Monopoly: Branding

• Branding
  – A company has a monopoly on its own brand by definition, so creating a brand is a powerful way to claim Monopoly
    • Branding without substance is dangerous—no Technology can be built on branding alone
    • Example: Apple Inc.; Yahoo is a counter example.
Startup: 3 Steps to Monopoly

• Three steps for Startup
  – Start small and Monopolize
    • Target Market for startup-small group of concentrated people with little or no competition.
  – Scale Up
    • First dominate a specific niche market and then scale to adjacent markets.
  – Don’t Disrupt
    • As you craft a plan to enter into adjacent market-don’t disrupt-avoid any competition.

7 Questions: Every Business or Startup Must Answer

1. **The Engineering Question**
   – Can you create breakthrough technology instead of incremental results?
2. **The Timing Question**
   – Is now the right time to start your particular business?
3. **The Monopoly Question**
   – Are you starting with a big share of small market?
4. **The People Question**
   – Do you have the right team?
5. **The Distribution Question**
   – Do you have a way not to just create but deliver your product?
6. **The Durability Question**
   – Will your market position be defensible 10 and 20 years into the future?
7. **The Secret Question**
   – Have you identified a unique opportunity that others don’t see?
Definite Optimist: Future will be better than the present if he/she works to make it better.
Definite Pessimist: Future can be known, but since it will be bleak, he/she must prepare for it.
Indefinite Optimist: Future will be better than the present—but does not know how exactly & hence has no plan.
Indefinite Pessimist: Looks out on a bleak future but he/she has no idea what to do about it.

CONCLUSION: STAGNATION OR SINGULARITY?
Stagnation or Singularity?

1. Alternation between prosperity and ruin
2. Convergence towards a plateau of development
3. Collapse so devastating that we won’t survive it
4. Accelerating takeoff towards much better future

Conclusion

- Horizontal extensive progress or globalization is a path of self-destruction.
- Vertical intensive progress or Innovative Technology (Zero to One) is a path of progress:
  - Future won’t happen on its own.
  - Our task as a human race is to find singular ways to create the new things that will make the future not just different—but better.
No company *has* a culture; every company *is* a culture.