Focus of Today’s Talk

• How do great entrepreneurs think about the future?
• How do they decide what to do – vision to venture?
• Lessons for Japan – innovation to entrepreneurship?

• We studied three great CEO-entrepreneurs and companies that we know well AND who shaped our modern world of high-tech strategy (especially platforms vs. products):
  – Bill Gates (Microsoft CEO 1975-2000, Chairman to 2014)
  – Andy Grove (Intel CEO 1987-1998, Chairman to 2004)
  – Each firm at its peak was the most valuable in the world!

On the Research

• Audience: Mainly Practitioners
  – Entrepreneurs
  – Technology CEOs and other senior managers
  – Students and others interested in strategy & execution

• Methodology
  – Qualitative research & interpretation
  – Evidence
    • ~100 interviews over 25 years, including Gates & Grove (Cusumano & Yoffie), plus executives in Apple, Microsoft and Intel; a few personal meetings with Steve Jobs (Yoffie)
    • 9 years of observing & working with Andy Grove (Yoffie)
    • 11 years of internal strategy documents-Intel; DOJ-Microsoft
    • Several of our books & 40 cases on Apple, Microsoft, Intel

Strategy Rules - Context

Three Very Different People, Great Influence on Each Other, Never (as a Trio) Compared Before

Gates – Privileged, geek, drop-out
Grove – Holocaust survivor, Ph.D.
Jobs – Orphan, flower child, drop-out

March 1998
Time Magazine 75th Anniversary

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Five Strategy Rules
Not a “random sample” of CEOs but a common approach. Our argument – important lessons for all strategists & entrepreneurs!

1. Look Forward, Reason Back
未来のビジョンを描き、逆算して今何をすべきかを導き出す

2. Make Big bets, Without Betting the Company
会社を危険にさらすことなく、大きなかけをする

3. Build Platforms & Ecosystems, Not Just Products
製品だけではなく、プラットフォームとエコシステムを構築する

4. Exploit Leverage & Power – Play Judo & Sumo!
Leverage 力点とPower勢力を両方活用する

5. Shape the Organization around a Personal Anchor
個人的な強みを核にして組織(とStrategic Focus 魚点）を作る

Our Argument
• Gates, Grove & Jobs: Entrepreneur-CEOs –establish the foundations of high-tech strategy:
  – Software Products to Platforms = MICROSOFT
  – Products to Platform & Ecosystem Leader = INTEL
  – Portfolio of Products, Platforms & Services = APPLE

• Success not random or only due to “luck.” Also reflected personal & organizational “anchors,” deep capabilities, and ability to learn & evolve. Vision and willingness to experiment led to “big bets” that changed the industry.

“Platform” General Definition
• A “mechanism” (physical or virtual) that brings different groups of people together for a common purpose or to share a common resource. 共通の目的のために一緒に異なる人々を合わせること、それとも共通の資源を共有することを可能化する“メカニズム”（機械?）（物理的または仮想的）

• The mechanism also enables transactions, interactions, or innovations that would not otherwise occur or occur so easily. また、このメカニズムは、そう簡単に起こらないだろう取り引き、相互作用、あるいは革新を可能化する

Levels & Types of Platforms
• Company Level 企業レベル
  – Product Platforms: Common building blocks and architecture that enable different groups within a firm to more easily create new products or services 新しい製品やサービスをより簡単に作るために会社内の異なるグループの一般的なビルディング・ブロックとアーキテクチャ

• Ecosystem Level エコシステムレベル
  1. Innovation Platforms: Common building blocks and architecture that enable different groups within & outside a firm to create new products & services.
  2. Transaction Platforms: Common building blocks and architecture to more easily interact or conduct transactions within a market.

Apple

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<th>Year</th>
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<th>Operating Profits (%)</th>
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What changed at Apple in 2003-2004?
### Apple vs. Microsoft

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### “Platform” Over “Product” Strategy

*When did “the light” go on?*

**Bill Gates:** 1980 MS-DOS contract with IBM
- Gates gave DOS to IBM for no-royalty but kept rights to license to other firms & create “PC clone” market.

**Andy Grove:** 1990 CISC vs. RISC decision
- Grove decided to stay with older x86 microprocessor design & evolve incrementally to preserve compatibility.

**Steve Jobs:** 2003 iPod/iTunes to Windows
- Jobs agreed to make Apple products & services available to all PC users.

### Apple: Pre-2003 = Product-First Thinking

Post 2003 = Product + Platform + Services!

- **Reinvented/extended capabilities:** Linked PCs to consumer electronics, smart phones, digital media & software.
- **Changed strategy & business model:**
  - Product portfolio (Mac, iPod, iTunes) to platform & complements (iOS – iPod, iPhone, iPad – with App Store, iTunes, then iCloud, etc.)

### How Look Forward, Reason Back?

- **Create a vision of the future, such as by**
  - Extrapolation (from “data” you & others know today)
  - Interpretation (what do these data really mean?)
  - Point of view (what should the future look like for your firm & market, after 1-3, maybe 5-10 years?)
  - Describe in a Vision Statement that is simple, clear, actionable
- **Then reason back**
  - What are the specific actions to take TODAY?
  - 6 months from now? Next 6 months? Etc.
Counter-intuitive, or Not?

- Yes. Most of us want to learn from history, so we tend to "look back, and then reason forward."
- Our three CEOs did some of this!
  - Gates – IBM’s history with the mainframe & PC “clones”
  - Grove – Fairchild’s chaotic history & early Intel goals
  - Jobs – Hewlett-Packard et al. & Silicon Valley culture
- But mostly, they “looked forward, and reasoned back” – very carefully.
  - We believe that all great strategists & entrepreneurs need to do this themselves or with a trusted team.

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**Moore’s Law Drove the Vision of Gates, Grove & Jobs – But Differently**

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**Bill Gates’ Vision (1975)**

"a computer on every desk and in every home," running Microsoft software. *(Company filing, 1975)*

*Note:* Microsoft co-founder Paul Allen wanted to sell hardware & software, which most computer companies did at the time (IBM, DEC, and Apple, founded 1976)

(J p. 63) Gates: "I thought we should do only software. When you have the microprocessor doubling in power every two years, in a sense you can think of computer power as almost free. So you ask, why be in the business of making something that’s almost free? What is the scarce resource? What is it that limits being able to get value out of that infinite computing power? Software."

1994 magazine interview, quoted in Microsoft Secrets (1995)

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**Steve Jobs’ Vision (1976, 2001)**

1976: A computer as easy to use as a typewriter or a toaster, right out of the box! Apple II (1978) then the Macintosh (1984)

2001: “We think [the PC] is evolving… The future of computing lay in finding a way to allow users to create, share, and add value to the explosion of digital devices… The Mac can become the ‘digital hub’ of our emerging digital lifestyle.”

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**Grove’s Vision (late 1980s)**

Moore’s Law would break the vertical computer industry. Intel must try to dominate only the microprocessor layer.
Les Vadasz (Intel SVP) on Andy Grove:

(J p. 85) Grove ... understood a basic truth: “You can only look so far, and so you better just keep looking frequently. That's the most important element of strategy: You understand the direction you're going, but you also know what you're going to do in the next six months. Most companies will do a pretty good job many times about the direction, but then they never break it down to shorter metrics. Intel did a super job on that.”

Intel and “Moore’s Law”

• Not really a “law.” An investment strategy (and big bet!) by Intel to double price-performance every 18-24 months
  - Required billions of dollars in steady investments over many years
  - x86 microprocessor became key to PC platform and this allowed Intel to maintain high prices, build entry barriers, “control” supply
  - Required partnership with Microsoft and Intel efforts to grow the entire PC ecosystem -- OS, applications, & hardware

• From 1965-2015, price-performance of PC computing devices increased about 2,000,000,000 times!
  - New apps & services utilizing higher levels of processing power, data storage, and bandwidth
  - Enabled most everything we see today in technology, including the next-generation “Internet of Things”

On Making Bets

Andy Grove: “There is at least one point in the history of any company when you have to change dramatically to rise to the next level of performance. Miss that moment and you start to decline.”

Steve Jobs: “Dylan and Picasso were always risking failure. This Apple thing is that way for me. I don't want to fail, of course... If I try my best and fail, well, I've tried my best.”

Thinking About the Future

• Thought Exercise: What innovations are occurring now in science, technology, and business that will greatly influence the future? These are what Andy Grove called “inflection points” “変曲点” – at least “10x” changes?
  - The next “Moore’s Law,” for different industries?
  - Current “facts” for extrapolation & interpretation?
    • What “resources” might become “almost free”?
    • What “resources” might become “more scarce”?
    • What “big bets” should companies make NOW?
Lessons for Japan?

- Japan has become a world leader in “Innovation Capacity” (イノベーション能力) : creating patents (universities & companies), and product & technology development in big firms
  - Many great entrepreneurs in Japanese history!

- Japan today behind USA, Europe & China in “Entrepreneurship Capacity” (起業能力) : commercializing innovations & creating new firms
  - How encourage and nurture the next generation?

How Succeed in Today’s World?

- 基礎科学と応用研究 ーと商品化ーの間のギャップが小さくなっている。

- ワールドクラスの大学は THREE 強い柱 PLUS より広範な ECOSYSTEM を必要とする。

MIT Entrepreneurship Output

- About 30,000 companies founded by MIT alumni since 1945, with ca. 4 million employees & annual sales ca.$2.5 trillion
- MIT graduates create hundreds of new companies each year
- Many MIT departments, labs, and centers encourage entrepreneurship among students, faculty & alumni:
  - Classes & workshops (MIT Sloan School, Media Lab, School of Engineering)
  - Trust Center for MIT Entrepreneurship
  - MIT $10K Entrepreneurship Competition (business plan competition)
  - MIT Venture Mentoring Service
  - MIT Technology Licensing Office
  - Deshpande Center for Technological Innovation (commercialize lab projects)
  - MIT Media Lab Entrepreneurship Program
  - MIT Legatum Center for Development and Entrepreneurship
  - MIT Enterprise Forum (education of alumni = business plan competitions)

MIT Regional Entrepreneurship Acceleration Program (MIT REAP)

- Established ca. 2011 by MIT Sloan School of Management
- Identify & share best practices to encourage entrepreneurship from MIT-Cambridge & other ecosystems
- 2-year program, with 8 country-city teams
- 4 meetings over 2 years, 3 at MIT & 1 at a team site
- 2015-2017: 8 teams from Japan, China, Thailand, Wales, Norway, Israel, Saudi Arabia, Chile
- Tokyo University of Science = Host for Japan team, with all teams meeting January 2017 in Tokyo
MIT's perspective on innovation-driven entrepreneurial ecosystems

Innovative Capacity & Entrepreneurial Capacity Are Distinct Regional Assets

イノベーション能力

E-Capacity

Ability to start and build new to the world businesses from inception to maturity.

起業能力

I-Capacity

Ability to develop new to the world innovations from inception through to the market.

High i-Capacity of Japan

Low e-Capacity of Japan

Innovation and Entrepreneurship are Related but Different

Patent Rate (I-Capacity) vs. Business Formation Rate (E-Capacity)

Culture and Community Capacity

Prime Minister Abe: "Japan needs to become more accepting of initial failures"
Conclusions

- Japan creates many innovations (patents) and companies but most startups remain small...
  - Innovations “trapped” in big conservative firms?
  - Not enough growth capital for startups?
  - Not enough “big ideas” or “vision”?
  - How get more young Japanese to take more risks?
  - How get more big firms to take more risks?
  - Entrepreneurs do not have to become Bill Gates, Andy Grove, or Steve Jobs to make important contributions to Japan’s future!

Now is “the Moment” for Japan!

Andy Grove (former Intel CEO) quoted in Strategy Rules: “There is at least one point in the history of any company when you have to change dramatically to rise to the next level of performance. Miss that moment and you start to decline.”

どのような企業にも、少なくとも一度は、業績を飛躍させるための激的な変化が求められるときがある。
その瞬間を逃せば、衰退が始まる。

今がその瞬間！
Thank you