

View from Silicon Valley

Live in a time of combinatorial innovation

- set of component parts that allow innovators to experiment with new ways of doing things
- steam engine, interchangeable parts, electronics, integrated circuits
- now computers and internet; biotech; robotics; etc.

Very important to have a conducive environment for experimentation

Policy issue: How to reduce cost of experimentation

Within organization

Everyone should feel free to make suggestions for improvement

- Peter Druker: "Most discussions of decision making assume that only senior executives make decisions or that only senior executives' decisions matter. This is a dangerous mistake."
- Decisions are made at all levels of the organization. If you want innovation you have to create a conducive climate for it.

Examples from Google

- ideas mailing list, 20% time, proximity, tech talks,
- computers: small teams + great infrastructure
- Google Scholar built by one man -- had great tools to work with

Managers should ask what factors are impeding your workers from getting job done?

- Peter Druker: "Organizations that strip away everything that gets in their knowledge workers' way -- will be able to attract, hold, and motivate the best performers. That will be the single biggest factor for competitive advantage in the next 25 years."
- At google we have: food, bicycle repair, haircuts, laundromats, oil change, car wash, dry cleaning, etc.
- All that enables knowledge workers to be more effective.

Across organizations

entry should be easy

costs of starting a business -- what are they in the UK? How does these costs compare?

- George Bush allegedly said that the French don't even have a word for entrepreneur
- Business Week: 50 employee rule in France -- lots of companies with 49 employees. Message: starting a business is fine: growing a business is not.

Exit should be easy: cost of failure should be low

- Legal, policy and social issue
- Includes creative destruction: new firms entering and displacing incumbents

Want successful experiments to spread

- mobility should be encouraged (also legal and cultural issue)
- Silicon Valley: change jobs without changing car pools attributable in part to anticompete clauses in contracts

Process innovation

Not all innovation is about big ideas, new products. There is also process innovation: using new technology to improve production and business processes.

- Kaizan: continual improvement
- Particularly easy with "software as service", "cloud computing"
- Relatively easy to experiment
- Google ran 10,000 experiments last year (5000 in search, 5000 in ads), implemented 400 changes in search about the same in ads
- Design your systems for experiments from the beginning

Why is Silicon Valley so successful with startups

- One-stop shopping for startups: engineers, managers, lawyers, caterers, logo designers, etc in one place.
- Wilson-Sonini: your first visit is free.
- Most important thing: role models. People who have left Google to join startups because they have seen it happen. Generally not doing it for the money (in a narrow sense) but because they want to
- create things. Same thing is true in UK. Use those role models well.

Immigration

- Silicon Valley couldn't exist in its current form without immigration. Read Annalee Saxenian's book on *The New Argonauts* about role of immigration in Silicon Valley.

Micromultinationals

- Even the smallest company has access to a computing and communications infrastructure than even the largest multinationals couldn't afford 15 years ago.
- And most of it is free!
- There are micromultinationals all over the Bay Area. Small companies with employees located around the world.
- The fact that the perfect engineer lives 9000 miles away is not a huge problem.
- Particularly if this is an old friend from school. (In many cases, these remote employees are former classmates. This is a case where the UK has a big plus since you have been educating the world for many decades.
- Given the education traditions, communications infrastructure, computer literacy and entrepreneurial spirit, I think the UK can be a leader here.