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Digital cities and new opportunities for economic development

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The geography of internet: Cities,
places and fluxes of information

1

ICTs, Knowledge and Development

- ✍ In the 21st century development is increasing built on the creation and exploitation of knowledge
 - Competing on skill versus cost
 - Ability to define new industries and products
- ✍ Although ICTs have had made information increasingly easy to access knowledge remains “sticky” and best acquired locally
 - Makes the nature of the regional environment a key factor
- ✍ Central issues included knowledge creation and transfer
 - Role of individuals (the creative class)
 - Specific sets of actors/processes (venture capital)
 - Public policy initiatives

2

Knowledge and agglomerations

- ✍ Proximity facilitates the creation & transfer of know-how and know-who
 - “Mysteries in the air” (Marshall, 1890)
 - Interfirm networks (Saxenian, 1994)
 - “Being there” (Gertler, 1995) and “Buzz” (Storper and Venables 2003)
- ✍ However uncertainty surrounding the relevant causal mechanisms and actors; difficulty in measuring and verifying
- ✍ Do agglomerations have a competitive advantage in knowledge creation and transfer?

3

The Creative Class Argument

- ✍ Richard Florida argues that regional development comes from the qualities of place
 - Developed a set of indicators based on Technology, Talent and Tolerance
- ✍ **Technology** is the “easiest” to achieve as it is a matter of infrastructure
 - Broadband internet, transportation
- ✍ **Talent** concerns the main actor in Florida’s theory, skilled (and generally technologically proficient) workers
 - Mobil and increasing concerned with quality of life issues
 - Attracted to places with new ideas
 - Attracted to places of **tolerance**, where people can be who they wish (Gay index)
- ✍ Florida has shown that places where these three come together have dynamic local economies



4

Creative Class Redux

- ✍ Florida argues that talent (or the creative class) is attracted to places with diversity and high quality of life
- ✍ Talent in turn is highly correlated (and causally related to) high technology
- ✍ Together, Talent and Technology produce higher incomes and regional development
- ✍ But talent is not enough...

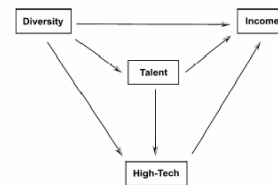
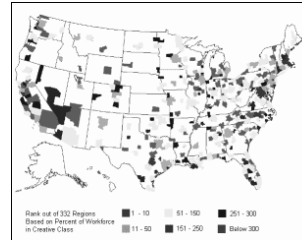
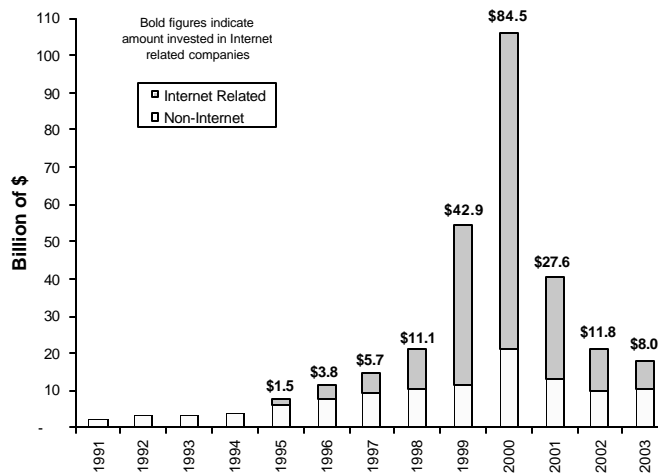


Figure 1. Structure of relationship between diversity, talent, and high technology.

5

The commercial Internet was fueled by venture capital...



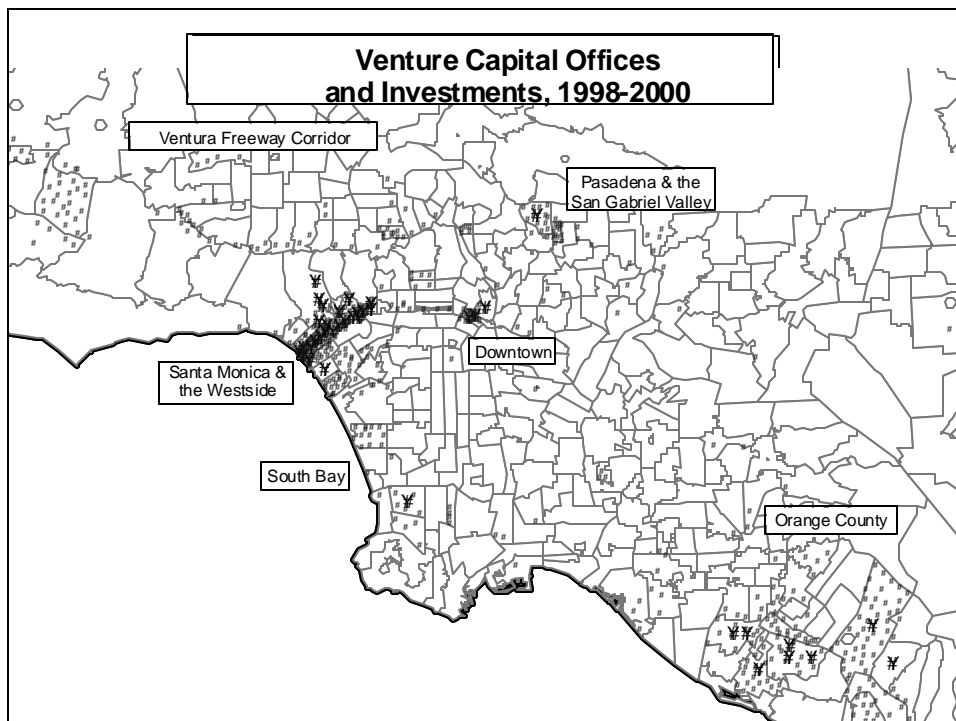
...although it clearly got out of hand.

6

Venture Capital and Knowledge

- ✍ VCs spend a lot of time developing social networks (know-who) to monitoring the activity of VCs, firms, and markets.
- ✍ VCs offer a number of non-monetary inputs (know-how), management advice, etc., and often it is these non-monetary inputs that entrepreneurs value most
- ✍ The ability of venture capital to supply this type of knowledge input is greatly assisted by geographic proximity

7



Venture Capital and Knowledge

- ✍ Financing is central to industrial development & venture capital is crucial to innovative firms
- ✍ VCs act as tacit information brokers who acquire and create tacit knowledge about industries, market conditions, entrepreneurs and companies through a constant process of Marshallian interaction and observation
- ✍ Specific areas in which VCs use tacit knowledge
 - (A) Selecting promising industries
 - (B) Finding good firms
 - (C) Assisting portfolio companies

9

Finding good firms

“I want them to take me through their whole career from inception and then I'm constantly writing down names of people they overlapped...and then I'm calling the people they didn't tell me about. What I'm looking for is someone I know and can call who will give me confidential information about this person's true performance and in exchange the tacit agreement or the implicit agreement is that I'm going to do the same for them when they call me about somebody. I don't believe in delegating reference checking. I think you've got to do it yourself because you need people you can really trust”

Menlo Park based venture capitalist

10

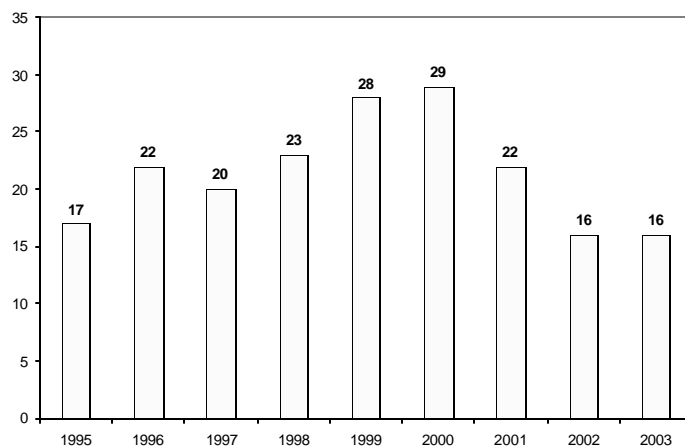
Silicon Valley's Long History

- ✂ 1900 to 1930 – wireless radio, vacuum tubes, television
- ✂ 1940 – Frederick Terman moves to Stanford
 - start of Stanford industrial park
- ✂ 1950 – Shockley & Fairchild Semiconductors
 - Fairchild was the first proto-venture capital investment
 - Two founders went on to start Intel
- ✂ 1960/70s – start of modern venture capital system
 - First engineers turned entrepreneurs turned VCs (Eugene Kleiner and Thomas Perkins)
- ✂ 1980s
 - PCs and LANs
 - Over-investment in hard drive industry and decline of VC in the late 1980s
- ✂ 1990s
 - Telecoms and dot-coms
- ✂ 2000s
 - ???

11

Number of New Companies in the Silicon Valley 150, 1995-2003

About 15 %
of the top 150
companies
are new each
year



Source: Compiled from San Jose Mercury News

12

Too much knowledge

- ✍ As the tacit knowledge of venture capitalists about the Internet spread it lost its value
- ✍ Herd-mentality and follow the leader investment strategies
- ✍ Dot-com boom and bust

13

When Bad Knowledge happens to Good Networks

“Money was not wasted because when the Internet broke there were enough promise there to second guess what we now know that we shouldn't have second guessed...We thought that the value proposition we could create would be so compelling that people would change their behavior. With those beliefs you could then see creating these multi billion dollar companies and then the mindset was if we could do it, then anyone could do it, so we have to do it faster than anyone else...[but] so many people started coming into the market that we started spending hundreds of millions of dollars in ads against each other. If there weren't all these entrants the fact of the matter is that more companies might have succeeded. It was kind of a lifeboat thing. Everyone jumped in so the whole lifeboat sank.”

Palo Alto based Venture Capitalist interviewed in 2002

14

Still....

✍ About \$80 billion dollars of venture capital was invested in Internet companies between 1995 and 2003

– eBay	Market Cap	\$58 Billion
– Yahoo!	Market Cap	\$42 Billion
– Google	Expected IPO Valuation	\$25 Billion
–		=====
–		\$125 Billion

15

CASE STUDY



- ✍ The Larta Institute was founded in 1993 through legislation enacted by the State of California in response to the 300,000 jobs lost in Southern California as a result of defense downsizing.
- ✍ Goal is to raise standards of living by growing technology businesses and by connecting cutting-edge technologies to the marketplace
 - Provides training conferences and seminars for entrepreneurs taught by executives, managers, investors
 - Networking events
- ✍ Since 1993, companies helped by Larta Institute have raised over \$1.5 billion in capital.

16

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17