

Silicon Valley's edge: How globalization strengthens the tech economy

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A popular 21st century economic maxim holds that "the world is flat" - or at least flattening.

Yet as countries, companies and individuals have begun to compete on a more level playing field, Silicon Valley's status as the world's pre-eminent tech center has been strengthened by the evolving global market, not weakened.

The same high-tech tools that radically diminished the significance of location and distance have, ironically, enhanced the valley's position as a test lab and marketplace for innovation and industry, say many executives, entrepreneurs, economists and scholars.

Just a few years after a tech crash wiped out 200,000 jobs in the valley, the region is riding high on a global market it helped create. The rise of tech hubs in China, India, Israel and elsewhere has reinforced the valley's leadership, not threatened it.

Consider the evidence:

- **Homegrown giants are thriving.** Revenues to valley icons such as Hewlett-Packard and Cisco Systems are soaring from the expansion of global markets. HP's non-U.S. revenue climbed from \$43.9 billion to \$59.5 billion from fiscal 2003 to 2006 and now comprises 67 percent of total revenue. In its most recent quarterly statement, HP highlighted how revenue from the "BRIC" countries - Brazil, Russia, India and China - had grown 37 percent compared with the same quarter in 2006. And Cisco, for its fiscal year 2007, reported 45 percent year-over-year growth in "emerging markets," a broad category that includes Russia and 129 smaller nations.

Meanwhile, the valley's software, computer chip and Internet companies are also enjoying strong growth. Google leads the way. Its market value over the past three years has soared from \$45.8 billion to \$211.7 billion.

The valley has long been home to the world's largest collection of tech companies, including 17 of 30 listed on the Amex Computer Tech Index. Many of those are racking up strong revenue, both in the United States and abroad, enabling them to invest in research and development, make acquisitions and fund start-ups.

- **The start-up culture is flourishing again.** In the third quarter of 2007, venture capitalists invested more than \$2.48 billion in more than 260 valley companies.

The numbers reflect a longstanding pattern: Venture funding to valley companies - from VCs inside and outside the region - has long dwarfed the amounts in other regions, including many large, developed nations.

The valley remains vital to the Web's continuing evolution. In less than two years, YouTube went from an idea to a \$1.65 billion acquisition by Google. Within the bustling social-networking sector, Facebook, LinkedIn and Ning, as well as "virtual worlds" Second Life and Gaia, are headquartered between San Jose and San Francisco.

Social networking: Global audiences, Bay Area offices

Even several sites that target audiences elsewhere are based in the valley or close by. Bebo - the top social-networking site for the United Kingdom, Ireland, Australia and New Zealand - is headquartered in San Francisco. The top sites for the Philippines (Friendster), Brazil (Google's Orkut) and Turkey (Yoonja) primarily operate from the Peninsula, thousands of miles from their users. Facebook recently disclosed that 60 percent of its users were outside the United States.

• **The valley's magnetism remains strong.** Multinationals like Nokia and Microsoft have expanded their presence here, and many overseas start-ups are moving operations to the valley to be closer to potential investors, partners, ideas and customers. Recent arrivals include major law firms with global reach, such as DLA Piper, eager to partake in international deal-making.

The city of San Jose's U.S. Market Access Center, designed to help foreign firms do business in the valley, now has about 35 firms as tenants and 100 percent occupancy, up from about 30 percent in spring 2006, its director says.

• **The valley is bullishly diversifying and expanding its influence.** Adapting to the Internet, Apple dropped "Computer" from its name to reflect how it has branched into iPods, iTunes and iPhones. Hardware stalwarts Applied Materials and Cypress Semiconductor, meanwhile, have moved into solar technology, angling for a piece of the huge global energy market.

While the valley may be best known for its computer industry, it also has become a center for biotech, medical devices, nanotech and especially "clean tech" - a sector covering energy generation, storage and efficiencies, as well as water purification and air pollution.

Valley executives predict a tenfold increase in solar power jobs locally over the next decade.

For veteran valley technologists, the most recent waves of innovation and entrepreneurial action fit a pattern. Since the 1950s, the valley economy has ridden a succession of powerful waves: semiconductors, software, personal computers, networking, the Internet.

"That's just the way the valley works," said Doug Henton, president of Mountain View-based Collaborative Economics.

Melting pot: Ideas, investments shared in valley

In an age of converging technologies, Silicon Valley - a nickname coined in the early 1970s from the silica used in semiconductors - is at the vortex. It's a technocratic melting pot where ideas are sparked, shared, blended and refined; where bootstrapping and angel investing may ultimately lead to multibillion-dollar companies; and where personal relationships are forged that lead to payoffs years down the road.

"Proximity matters," explained Marguerite Gong Hancock of the Stanford Project on Regions of Innovation and Entrepreneurship. For all the business handled via the Internet phone system Skype and

teleconferencing, "the highest value-add is face-to-face," she said. "When you're doing your ultimate negotiation, it's face-to-face and unscripted."

Even the most sophisticated video-conferencing tools, such as HP's Halo or Cisco's TelePresence, can only approximate eye contact, much less a handshake.

The existing bedrock of older tech companies, collaborations with research universities, venture funding and supportive legal institutions all contribute to the valley's success. Another critical ingredient, many agree, is the valley's bold, risk-taking culture, including a high tolerance for failure.

"Intellectual audacity" characterized by open dialogue and collaboration is a valley hallmark, said Georges Nahon, chief executive of Orange Labs San Francisco, a 75-employee research outpost of France's equivalent to AT&T.

"People don't think about the guy on the other side of the restaurant as a competitor. It's always a potential partner," Nahon said. For those and other reasons, he added, the valley is "evolving in a way that is not predictable."

A few years ago, Nahon said, few people would have predicted how concerns over climate change would prompt such a dramatic jump in clean-tech investment. Similarly, few would have foreseen presidential candidates taking voter questions via YouTube, or Apple selling 1.4 million iPhones. Few would have anticipated how VMware would go from a niche software company to an industry leader.

Bestselling book: Writer Friedman popularized idea

The notion that globalization was leveling the peaks and valleys of the world's economy was popularized in the 2005 bestseller "The World Is Flat" by New York Times columnist Thomas Friedman. Inspired by a visit to Bangalore tech companies like Infosys and Wipro, Friedman described how the collapse of the Soviet Union, the advance of freer markets and new communication technologies had fundamentally altered the global economy.

Friedman's metaphor is a source of debate. While tech-driven globalization is credited for raising the standard of living for millions of people in disparate regions, critics say it also has left many regions behind and has widened the gap between rich and poor. Even in Silicon Valley, residents understand how the buying power of tech millionaires contributes to high real estate costs, making it harder for low-income families to make ends meet.

But few question that technology has profoundly reordered the world's economy and prompted a reconsideration of 20th century notions about us-vs.-them rivalries between nations. In a new era of capitalist collaboration, observers such as Cisco Chief Executive John Chambers and University of California-Berkeley scholar AnnaLee Saxenian say emerging tech hubs are more partners than rivals. One tangible measure is the rise of cross-border co-patenting: The valley has participated in a sixfold increase in such filings from 1993 to 2005.

Globalization in the second half of the 20th century was mostly driven by large multinational corporations, including HP and Intel, notes Saxenian, dean of the UC-Berkeley's School of Information.

But now, Saxenian says in her book "The New Argonauts," globalization is increasingly influenced by foreign technologists who came to the valley as students or engineers and returned home to start companies.

The Plug and Play Tech Center in Sunnyvale caters to that need to be here. An international array of flags hang in the lobby of this unusual incubator, founded in January 2006 in handsome quarters that became available after the Danish electronics giant Philips Electronics decided to sell its semiconductor business. Its cubicles are a hive of more than 100 business entities, ranging from field offices to headquarters.

Every cubicle tells a story: Peerant's CEO commutes between Silicon Valley and Mexico City. The Dutch company STS Wireless and the Swedish Internet security firm YuBico both moved their chief technology officers to Plug and Play.

A search start-up called Ketady - French slang for "what did you say?" - is comprised of founder Fabien Degaugue and two colleagues back home in Lille, France. Ketady's aim is to allow users to anonymously ask questions of experts who happen to be online at a given moment. Ketady, Degaugue says with a grin, would be an ideal acquisition for Google.

One large cubicle is the home of Zephyr, a software testing start-up. Zephyr was founded by Samir Shah, a native of India who has worked in valley since the early 1990s. His hometown happens to be Bangalore, the tech hub that inspired Friedman's "flat world" epiphany.

Differing goals: Start-up culture unique in valley

A closer look, Shah said, would reveal that most techies in India aspire to the security and steady pay offered by big companies. But the dream in the valley, he said, is to guide a start-up to glory in a job with long hours, modest pay and stock options that might lead to riches.

"The cool thing is to work for a start-up," he said.

The founder of Plug and Play agrees. Saeed Amidi came to the United States from Iran at age 14, and prospered in Persian rugs and real estate before succeeding as a technology investor. Amidi said his travels had taken him to 40 countries, and the "flattening" effects are obvious.

"But I think for start-ups," Amidi said, "the beginning and end of the world is here."

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