

# Digital Media, Society, and Culture

Angus A.A. Mol

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# Patrick Collison & Progress

*The Atlantic*



stripe

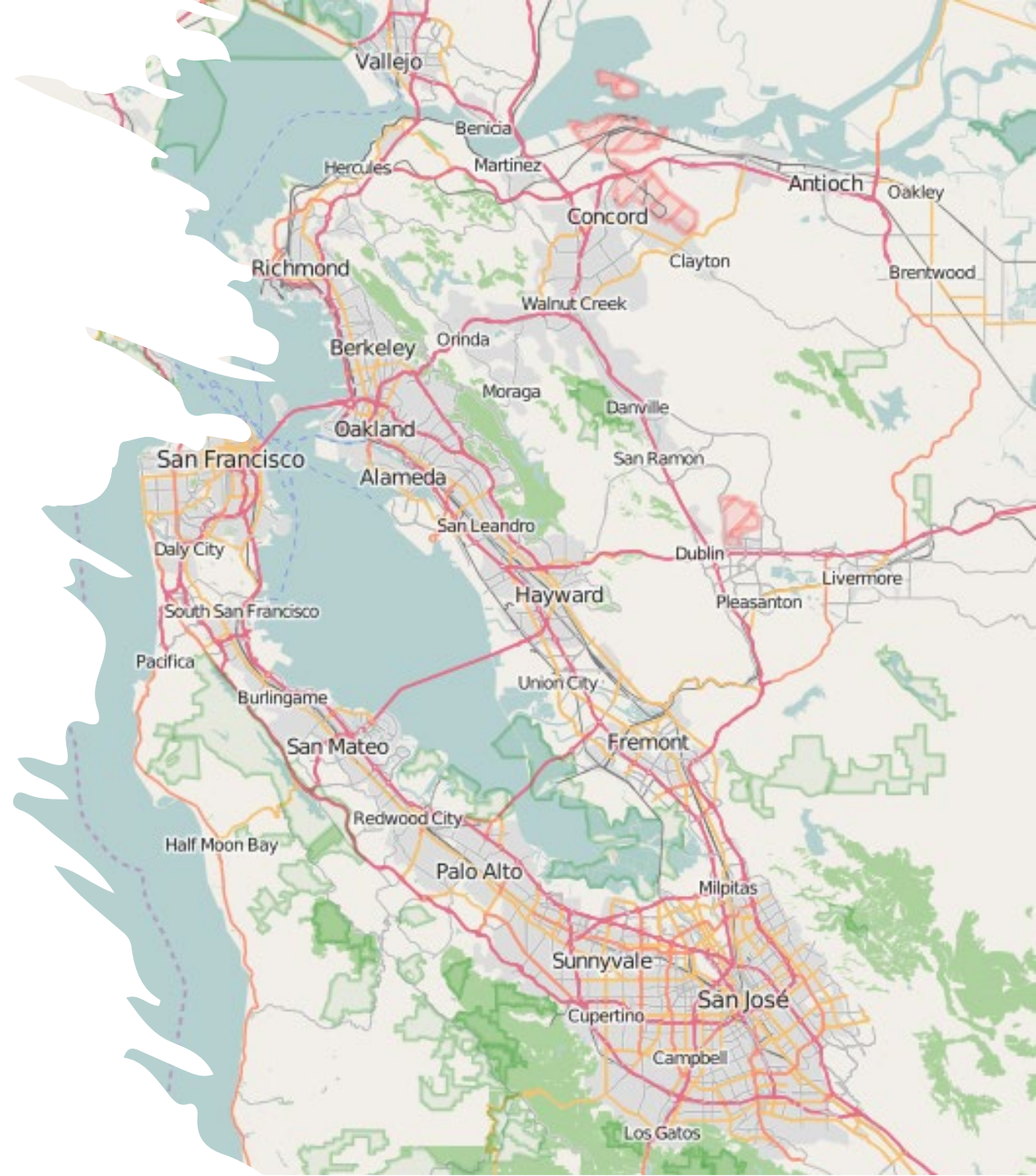
## We Need a New Science of Progress

Humanity needs to get better at knowing how to get better.

By Patrick Collison and Tyler Cowen



There *can* be ecosystems that are better at generating progress than others, perhaps by orders of magnitude. But what do they have in common? Just how productive can a cultural ecosystem be? Why did [?????] happen in [?????] rather than Japan or Boston?

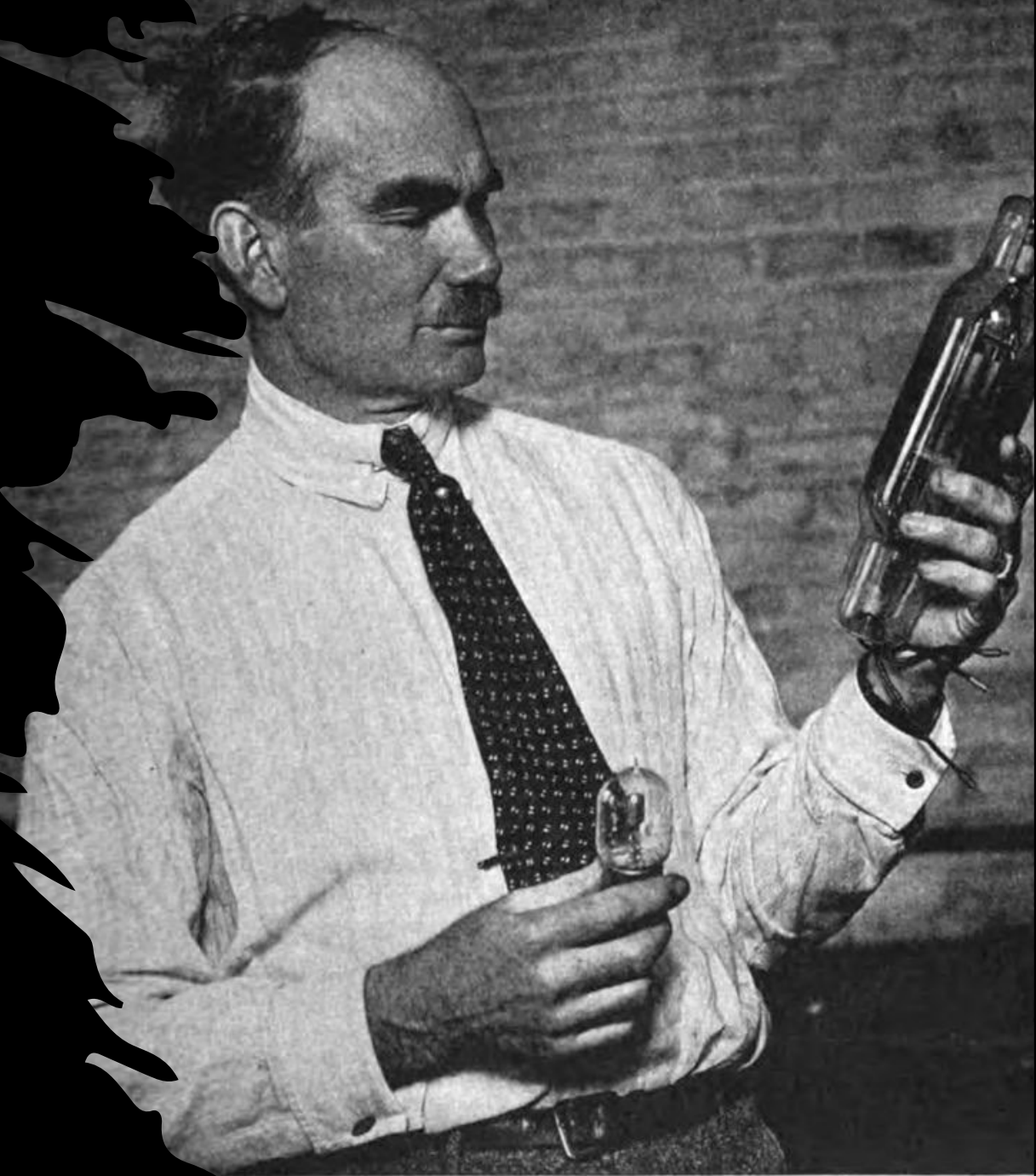


# Silicon Valley

# Four Stories of Progress from Silicon Valley

## Story 1: The Most Special/Mundane Place on Earth

SITE OF  
RESEARCH MANUFACTURING  
COMPANY IN SILICON VALLEY.  
THE RESEARCH CONDUCTED  
HERE LED TO THE DEVELOPMENT  
OF THE SILICON VALLEY. 1956



# SILICON VALLEY U.S.A.

(This is the first of a three-part series on the history of the semiconductor industry in the Bay Area, a behind-the-scenes report of the men, money, and litigation which spawned 23 companies — from the fledgling rebels of Shockley Transistor to the present day.)

By DON C. ROEFLER

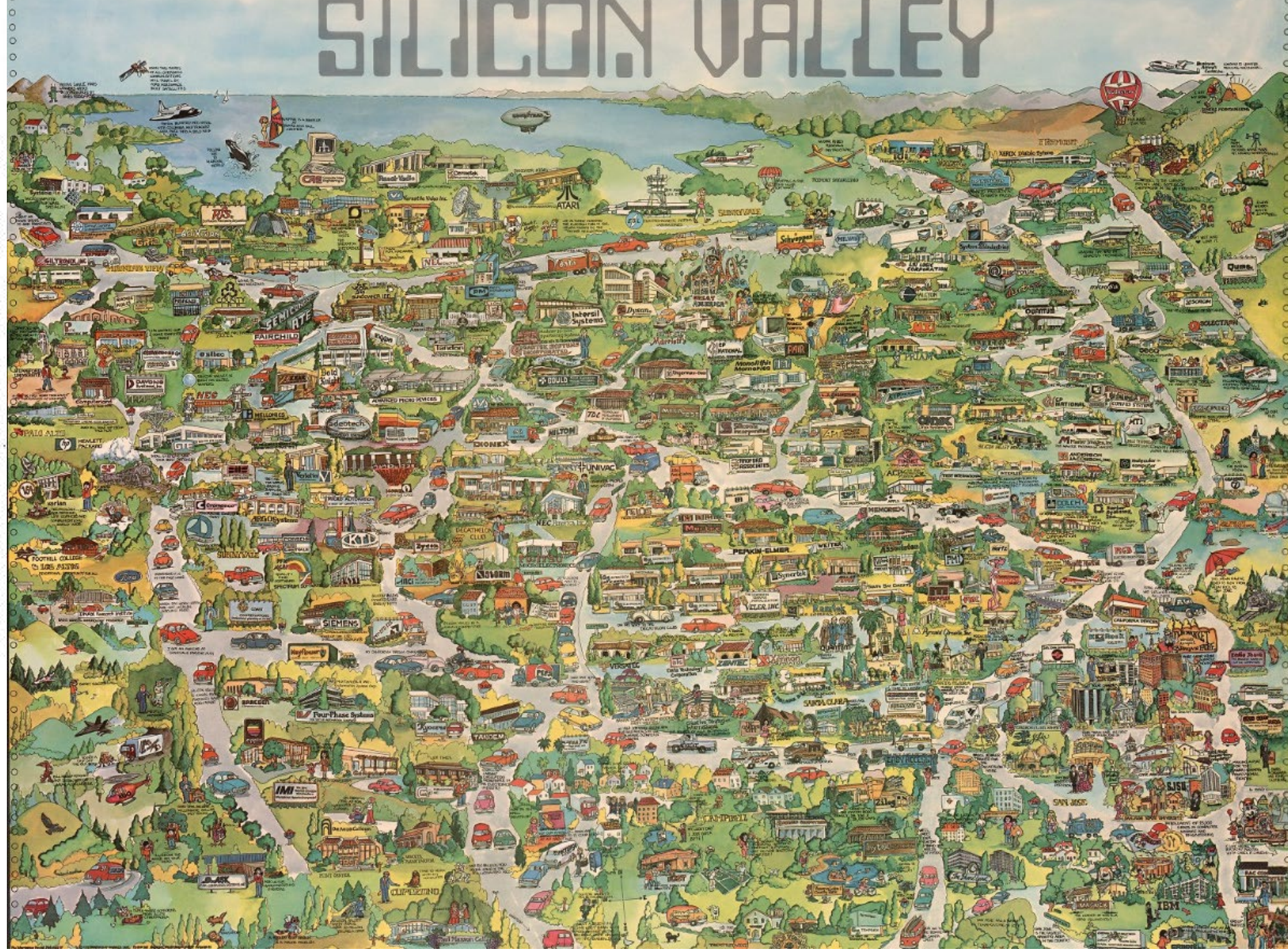
It was not a vintage year for semiconductor start-ups. Yet the 1970 year-end box score on the San Francisco Peninsula and Santa Clara Valley of California found four more new entries in the IC sweeps, one more than in 1969.

The pace has been so frantic that even hardened veterans of the semiconductor wars find it hard to realize that the Bay Area story covers an era of only 15 years. And only 23 years have passed since the invention of the transistor, which made it all possible.

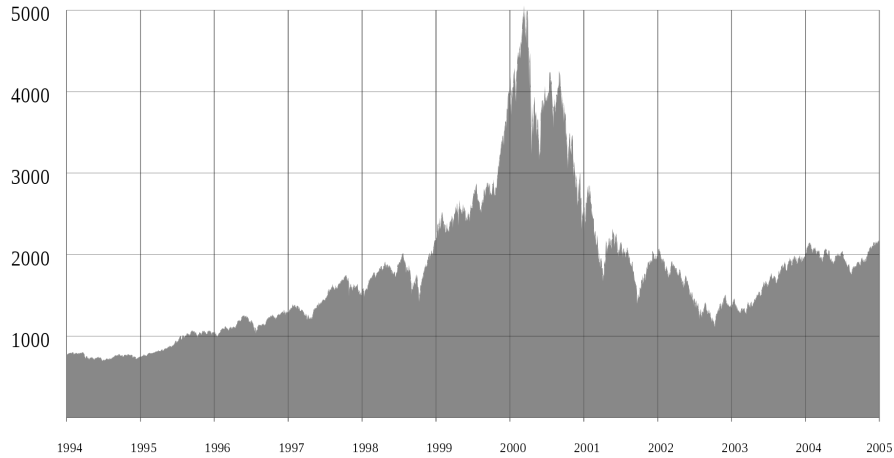
For the story really begins on the day before Christmas Eve, Dec. 23, 1947. That was the day, at Bell Telephone Laboratories in Murray Hill, N.J., three distinguished scientists, Dr. John Bardeen, Dr. Walter Brattain and Dr. William Shockley, demonstrated the first successful transistor. It was made of germanium, a point-contact device that looked something like a crystal detector, complete with cat's whiskers.

The three inventors won the Nobel Prize for their efforts, but only one of them, Dr. Shockley, was determined to capitalize on the transistor commercially. In him lies the genesis of the San Francisco silicon story.

It was only by a quirk of fate, however, coupled with lack of management foresight, that Boston failed to become the major semiconductor center San Francisco is today. When Dr. Shockley left Bell Labs in 1954, he headed first for New England to become a consultant to Raytheon Co., with a view toward establishing a semiconductor firm there under its auspices.



1982 map

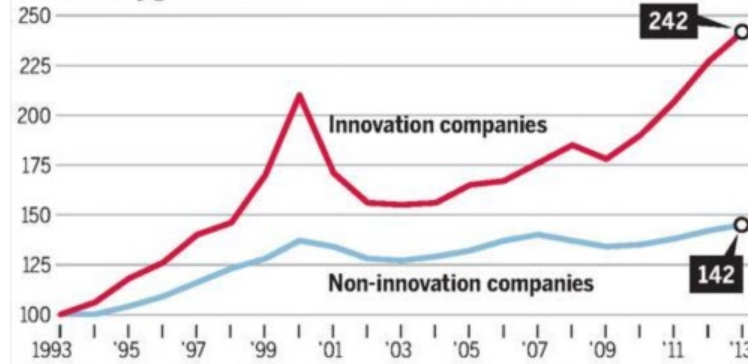


Nasdaq Composite stock market

### Silicon Valley's record-breaking growth

The region's innovation industries have been driving the economic growth for the past 20 years, surpassing the dot-com boom in 2000.

**Silicon Valley growth index:**

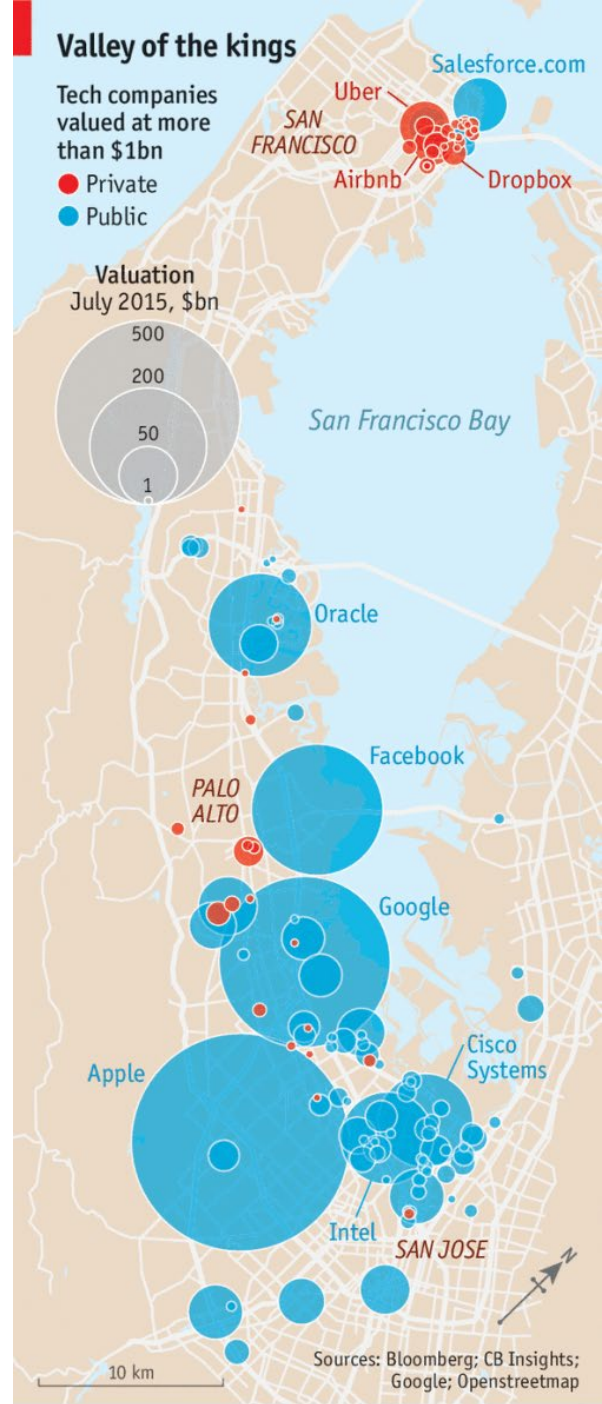


Note: Reflects GDP in Santa Clara, San Mateo and San Francisco counties; Starting values are indexed to 1993 economic output)

Source: Moody's Analytics; Analysis: Collaborative Economics BAY AREA NEWS GROUP

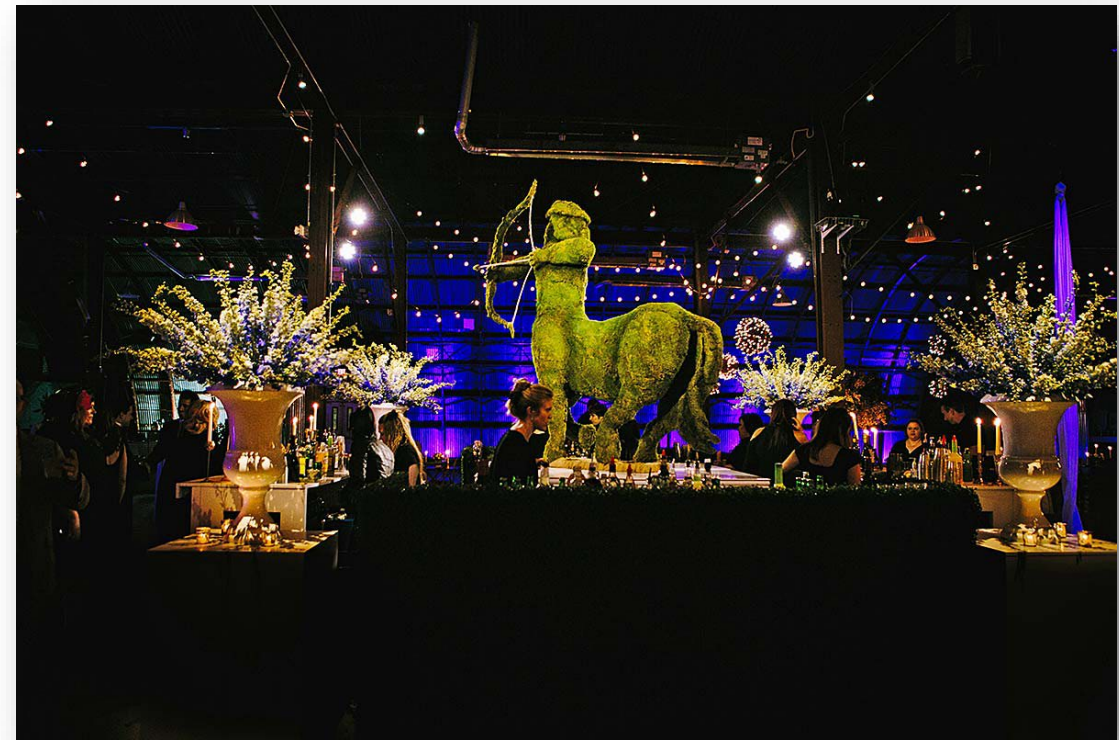
Home to 76,000 millionaires and billionaires

[Link to interactive map \(unverified source\)](#)






**\$2,613,310**



© gsg1986gsg / INSTAGRAM



© dichosa22 / INSTAGRAM

 **dichosa22** • Follow  
Palace of Fine Arts

dichosa22 Facebook Holiday Party  
#aboutlastnight #MPKHoliday2018  
#facebooklife #tistheseason  
espino\_ You work at Facebook  
nelsoncruzevents Magnificent! 🌟  
rhi\_rhi\_20 This looks ridiculous. Like something out of a movie 😂😂😂  
Lucky lady x  
dappermentips ✓....

❤️ 💬 📤 📌

Liked by amandasavinon and 126 others  
7 DAYS AGO

Add a comment... ⋮



# Sliding into Elon's ~~not~~ very special DMs

Date	Content	Sender	Participants
2022-04-04 12:17:09 (CDT)	👍	Mathias Döpfner	Mathias Döpfner, Self
2022-04-11 09:23:35 (CDT)	Great to hang yesterday. I'd love to help think through the structure for the Doge social media idea. Let me know how I can help	Kimbal Musk	Kimbal Musk, Self
2022-04-11 09:58:35 (CDT)	Ok	Self	Kimbal Musk, Self
2022-04-14 11:07:26 (CDT)	Loved "you are the hero Gotham needs - hell F'ing yes!"	Self	Marc Merrill (Riot), Self
2022-04-14 11:08:03 (CDT)	Liked "Amazing! Not sure which plan to root for. If Plan B wins, let me know if blockchain engineers would be helpful."	Self	Steve Davis, Self
2022-04-14 14:45:30 (CDT)	<Attachment - application/vnd.openxmlformats-officedocument.wordprocessingml.document - Twitter Interview.docx>	Mathias Döpfner	Mathias Döpfner, Self
2022-04-15 16:51:45 (CDT)	Laughed at "Who knew a Saudi Arabian prince had so much leverage and so much to say about twitter."	Self	Omead Afshar, Self

2022-05-12 19:28:30 (CDT)	There is *massive* demand to support your effort btw...people really want to see you win.	Jason Calacanis	Jason Calacanis, Self
2022-05-12 19:30:30 (CDT)	Morgan Stanley and Jared think you are using our friendship not in a good way	Self	Jason Calacanis, Self
2022-05-12 19:31:12 (CDT)	This makes it seem like I'm desperate.	Self	Jason Calacanis, Self
2022-05-12 19:31:17 (CDT)	Please stop	Self	Jason Calacanis, Self
2022-05-12 19:31:48 (CDT)	Only ever want to support you.	Jason Calacanis	Jason Calacanis, Self
2022-05-12 19:37:49 (CDT)	Clearly you're not desperate — you have the worlds greatest investors voting in support of a deal you already have covered. you're overfunded. will quietly cancel it... And to be clear, I'm not out actively soliciting folks. These are our exiting LPs not rondos. Sorry for any trouble	Jason Calacanis	Jason Calacanis, Self

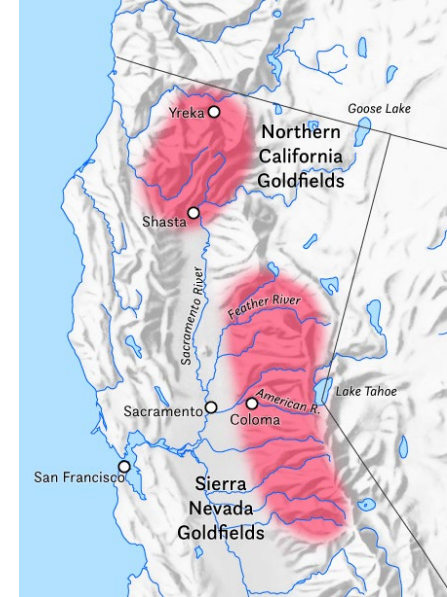
# **Four Stories of Progress from Silicon Valley**

## **Story 2: Gold, Robber Barons, and Brains**

# California Gold Rush



Early Ranching Map ↑↓ San Francisco's Harbour (1860ties)



All images from Wikipedia's [California Gold Rush](#) page



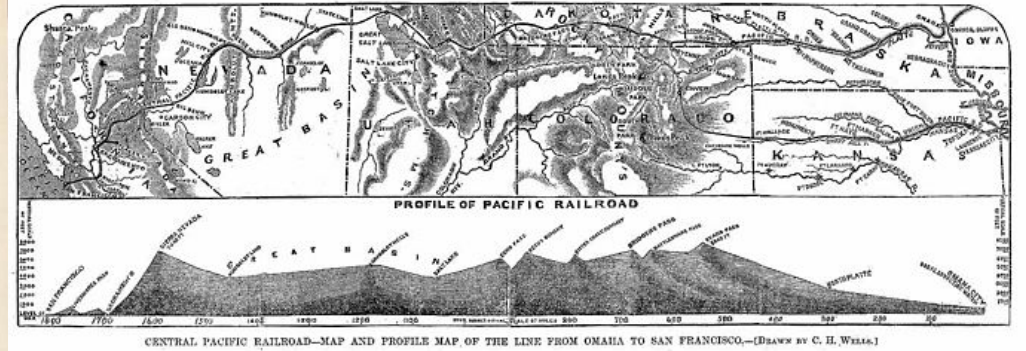
“What real riches are?  
I could spend this gold tomorrow  
and it would belong to someone  
else.  
No. I want us rich in choices, that's  
something no one can take.”

# The Transcontinental Railway



Chinese workers laboring on the railroad in the Sierra Nevada

1869. May 10th. 1869.  
**GREAT EVENT**  
Rail Road from the Atlantic to the Pacific  
**GRAND OPENING**  
OF THE  
**Union Pacific**  
RAIL ROAD.  
**PLATTE VALLEY ROUTE.**  
PASSENGER TRAINS LEAVE  
**OMAHA**  
ON THE ARRIVAL OF TRAINS FROM THE EAST.  
**THROUGH TO SAN FRANCISCO**  
In less than Four Days, avoiding the Dangers of the Sea!  
Travelers for Pleasure, Health or Business  
will find a Trip over The Society Mountain Healthy and Pleasant.  
**LUXURIOUS CARS & EATING HOUSES**  
ON THE UNION PACIFIC RAIL ROAD.  
**PULLMAN'S PALACE SLEEPING CARS**  
RUN WITH ALL THROUGH PASSENGER TRAINS.  
**GOLD, SILVER AND OTHER MINERS!**  
Now is the time to seek your Fortune at Montana, Wyoming, Arizona, Washington, Dakota, Colorado, Utah, Oregon, Nevada, New Mexico, Idaho, Nevada or California.  
CONNECTIONS MADE AT  
**CHEYENNE for DENVER, CENTRAL CITY & SANTA FE**  
BY DENVER AND CHEYENNE FOR DENVER, SIOUX CITY, VIRGINIA CITY, SALT LAKE CITY AND ARIZONA.  
THROUGH TICKETS FOR SALE AT ALL PRINCIPAL RAILROAD OFFICES.  
**Be Sure they Read via Platte Valley or Omaha**  
Company's Office 72 La Salle St., opposite City Hall and Court House Square, Chicago.  
U. P. GILMART, JOHN P. HART, J. BUDD, W. SNYDER,  
Ticket Agents.





# The Stanfords





# Four Stories of Progress from Silicon Valley

## Story 3: The Mother of All Demos

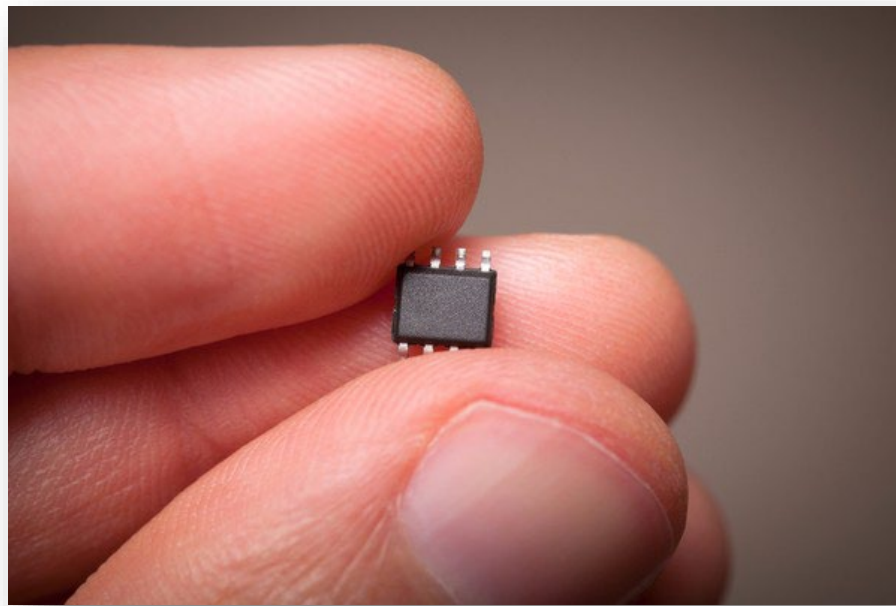




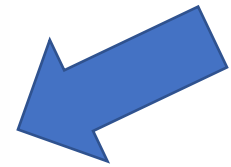
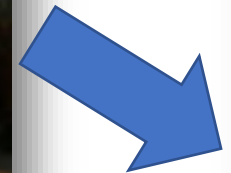


Vacuum Tube

Transistor



Microchip



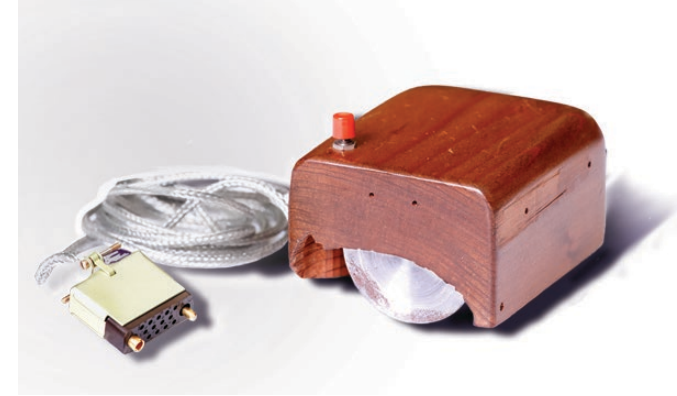
# SRI and the Mother of all Demos

- Stanford Research Institute
  - 1946: Rubber replacement
  - 1950: Electronic Check Processing
  - 1953: Disneyland feasibility study
  - 1966: Shakey, the robot (AI)
- “Mother of all Demos”: Computer Society's Conference in San Francisco, by Douglas Engelbart on December 9, 1968

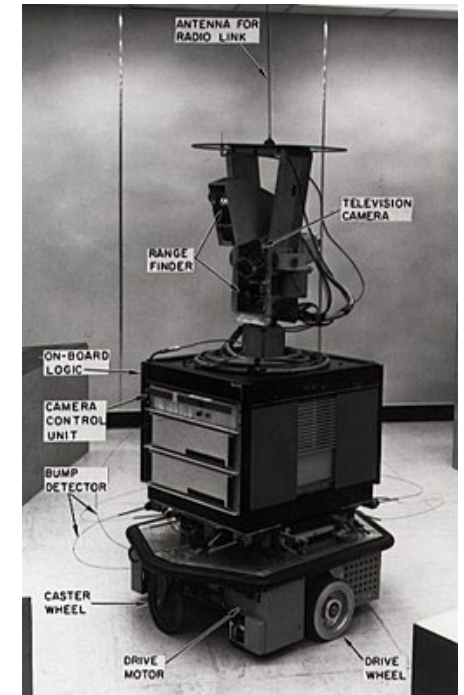
“Computing was, in those days, believed to be for arithmetic. That’s it.”

“There was this proposal called ‘Augmenting the Human Intellect’ by someone at SRI”

~ Bob Taylor, NASA (in Valley of Genius)



First mouse by Bill English



Shakey,  
the robot in 1972

# A Long History of Demos

## ○ Tesla's new humanoid robot prototype: Optimus

A couple of days ago at the 'Tesla AI day, 2022' Elon Musk revealed a new prototype of a humanoid robot named Optimus. Honestly, I have no profound knowledge about robots, how they function or their technics, but I am very interested in how such robots will evolve into the future. I also remember from last year's AI day that Musk did announce that they were making a robot, but did not have much to show so had a dancer perform dressed in a Tesla Bot spandex unitard on stage, which left the audience a little lukewarm.



# **Four Stories of Progress from Silicon Valley**

Story 4: Hippies to Hackers to Humanity+



# Hippies...

- Summer of Love, San Francisco 1967

“As an engineer I wore a coat and tie to work every day, however, we all had our hippie costumes and we would go to San Francisco and pretend we were flower children. The ultimate posers, we were.”

~ Nolan Bushnell, Co-founder of Atari

- Stewart Brand and the *Whole Earth Catalog*

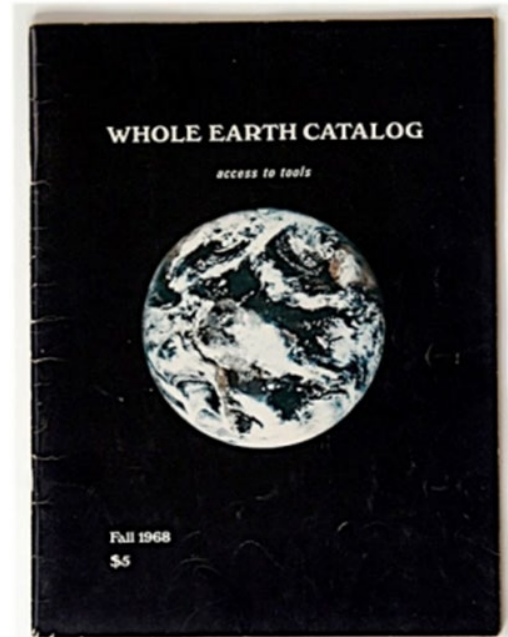
- Lifestyle, but also software catalog

"When I was young, there was an amazing publication called *The Whole Earth Catalog*, which was one of the bibles of my generation ... It was sort of like Google in paperback form, 35 years before Google came along. It was idealistic and overflowing with neat tools and great notions."

~Steve Jobs



Stewart Brand



# ...to Hackers

"A person who enjoys exploring the details of programmable systems and stretching their capabilities, as opposed to most users, who prefer to learn only the minimum necessary"

[The Jargon File](#)

- 1980ties, Hacker Culture
  - Computers as Expressive
  - Hackers as Powerful Nerds (Wizards)
  - [“Information Wants to be Free”](#)

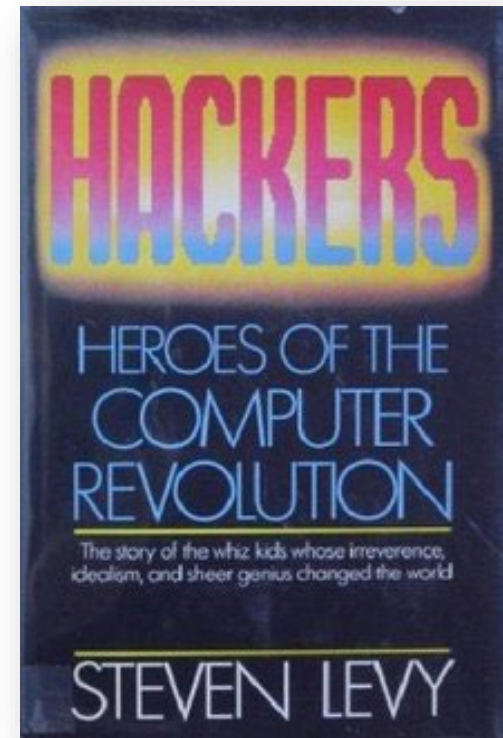


Steve Wozniak (of Apple fame)

“It really was a gathering of the illuminati.

[...] It was really a very inspiring kind of occasion: Hey, we are here. We can get together. We are interesting people!”

~ Lee Felsenstein, organizer of the Homebrew Computer Club



humanity<sup>+</sup>



Calico



# Four Stories of Progress from Silicon Valley

## Bonus Story : The Most Silicon Valley Man Alive

“Often in Silicon Valley we talk about tech visionaries who are programming geniuses or obsessed with the detail and design of the project. That’s not Sam [Altman], his strongest **most unique skill is wielding power** and that may have consequences for all of us.”

~ The Open AI Story (Podcast)





Takeaway: This one culturally specific place on earth is not only extraordinarily wealthy and unique, but is part of all our day to day.

Additional takeaway: the aesthetics of the Digital are shaped by a cultural history in which **curiosity & growth** have long been the leading values.



More progress (?) next week!

“People use their real names on Facebook. [...] And I think that that’s a really simple social solution to a possibly complex technical issue.”

Content Cue: Where in the world is [insert digital medium/thing of your choice here]?