## **How Remote Work Could Destroy Silicon Valley**

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16-20 minutes

## The tech industry is built on serendipity. If workers flee the Bay Area, what's left?

There may be no richer Silicon Valley lore: It was 2004, Mark Zuckerberg's summer of craziness. At 20, he and five buddies had rented a Palo Alto home, where they partied and wrote code for Facebook. One day, as Zuckerberg and the guys were strolling the neighborhood, he saw a familiar face. It was Sean Parker, the co-founder of Napster, the music sharing service. By coincidence, Parker, at loose ends and contemplating his next move, was staying at his girlfriend's parents' house, just up the street from the Facebook pad. The very next week, the big-thinking, smooth-talking Parker moved in with Zuckerberg and began introducing him around Silicon Valley. By the end of the summer, he had paved the way to Facebook's first big investment — \$500,000 from Peter Thiel.

Thiel, who grew up in Silicon Valley and graduated from Stanford, had only recently landed a substantial payday himself. It went back to a providential lecture he delivered in 1998 at Stanford. One of the half dozen or so people present was a 23-year-old Ukrainian immigrant named Max Levchin — not a student, but a newcomer from Illinois who was there mostly to bask in the air conditioning and escape the sweltering summer heat. Afterward, Levchin approached Thiel. After a bit of chatting, Thiel asked why the young man was in town.

"Probably gonna start a company," Levchin said.

"Oh, great," Thiel replied, and suggested the two meet up the next day and talk more over smoothies.

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In 2002, eBay paid \$1.5 billion for the resulting startup — Paypal, making the two men and several partners rich. Over the subsequent years, Paypal vets including Thiel, Elon Musk, and Reid Hoffman went on to found YouTube, Tesla, SpaceX, LinkedIn, Yelp, and Palantir.

Perhaps no phenomenon is more studied, marveled, and desired in the world of high tech and science than the mystery of serendipity. In seemingly every industry, CEOs pay millions in consulting, design, and architectural costs to multiply and optimize the number of chance encounters between their most creative employees — and hopefully profit from the blockbuster new products that might result. If only they could engineer the cubicles just so, or the indoor waterfall at the right angle, they might orchestrate providential encounters, or at least load the dice in their favor.

No place on the planet generates more such interest than Silicon Valley. For decades, cities everywhere have tried to replicate the Valley's record of producing one trend-setting tech giant after another, but none has quite measured up. Like history's other hubs of outsized accomplishment — Athens in 450 B.C., Hangzhou in the 12th century, and Florence in the 16th century — Silicon Valley has entrenched itself as the world's centrifugal force for the biggest thing of its age, tech.

But now Silicon Valley seems to be under a little-noticed threat. Amid Covid-19, the deep recession, and renewed antitrust pressure from Congress and regulators, the Valley faces a very different challenge — the disruption of its very essence, the serendipitous encounter. The culprit is a rush by many of the Valley's leading companies to permanently lock in the coronavirus-led shift to remote work. In May, Twitter CEO Jack Dorsey told his employees they were no longer required to turn up in the office. Slack said more or less the same to its workers, and the trend was made official by industry colossus Zuckerberg, who announced that he expected up to half his employees would become permanently remote.

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In the years before the pandemic, talent in San Francisco and the Valley were already conflicted about whether to stay, increasingly exasperated by the cost of living. The concentration of highly motivated creators has produced enticing jobs, but also driven up prices. In Palo Alto, the median home now costs \$3.2 million. In nearby Mountain View, it's \$1.7 million, and in San Francisco \$1.8 million. In other words, the Valley has priced out almost anyone not making high six-figures, and even many of them. The temptation has been to flee elsewhere, and some tech talent had already been doing so.

But now, if engineers, designers, and venture capitalists are geographically disbanding, working via the cloud instead of walking Google's halls, surfacing at Buck's Restaurant, or the cafes on University Avenue, how will future serendipity happen?

To question the reality and role of serendipity to a Valleyite is to challenge feng shui in Hong Kong. Its mystic stature is both the Valley's deepest-held belief and its drawing card. When Valleyites think of serendipity, they have in mind something unsought, found unexpectedly, and also proves to be highly lucrative.

You might assert that, absent the partying Palo Alto summer, Facebook might have still grown into the form we know it, only in another place. You might also argue that serendipity is very rarely so dramatic, and more typically involves small instances of incremental providence as tech teams iterate. Perhaps, but Facebook did not bloom elsewhere. And while it's true that serendipitous moments are usually prosaic and not Hollywood-worthy, you don't need many lightning strikes when the outcomes are multibillion dollar tech companies. In every town, in every country in the world, childhood friends go into business together, but only rarely are those pals Steve Jobs and Steve Wozniak, growing up in the 1960s in the Silicon Valley town of Cupertino and going on to create Apple.

Tech serendipity is the means to an end in Silicon Valley. "You bring together a density of entrepreneurs and capital with a belief in crazy ideas and a readiness to fund them, and you manufacture serendipity at higher rates than if it were evenly distributed," said Shaan Hathiramani, the CEO of Flockjay, a San Francisco education startup, who is among those wrestling with how to replicate the chance encounter.

But in a future remote dispersion of workers that all but excludes the unexpected, face-to-face encounter, what will Silicon Valley lose? And really, was it already lost long ago?

If Silicon Valley has a father, it might be William Shockley, the paranoid co-inventor of the transistor. Shockley grew up in Palo Alto when it was a place of apricot orchards and a few thousand people, then went East for his doctorate and to work for Bell Labs. In the 1950s, after he, Walter Brattain, and John Bardeen sparked the information age revolution with their transistor, he wore out his welcome at Bell, and decided to go home. He took with him a dozen brilliant young engineers, and together they started the Valley's first transistor-making firm. It didn't turn out well for Shockley himself, because his best staff soon mutinied and left. But it did start the ball rolling for the Valley when some of his former employees went on to establish Intel. Already, serendipity was working.

By then, Palo Alto had become the beating heart of the Valley. A crucial action then rooted serendipity into the Valley's firmament. In 1951, Fred Terman, Stanford's dean of engineering, set aside hundreds of acres of land on university property as an industrial park for entrepreneurs. Inventors could lease space cheaply, locking in a relationship with the university and setting the stage for countless famous startups, including among the first tenants — Bill Hewlett and David Packard.

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Until Covid-19, Big Tech seemed to be pulling out all the stops to engineer more serendipity. In recent years, Google had spent an estimated \$120 million on celebrity architects, designers, and builders to construct the Googleplex, its Mountain View headquarters, and another \$1 billion for an adjoining office park. Facebook had laid out \$300 million to add a new main building at its headquarters for 3,000 employees, outfitted with its own Redwood forest, a 3.6 acre rooftop garden, and multiple restaurants. Apple had spent about \$5 billion for Apple Park, a circular, four-story building designed by Jobs for its 13,000 local employees. In all the cases, the idea was to create more and more chances for people to run into each other and start trading ideas.

And yet Big Tech has seemed calm if not outright indifferent regarding the potential demise of the unscripted moment in this protracted period of remote work. A look at the last decade or so of Valley history may explain why: Over that time, the FAANG companies have largely stopped trying to invent the next big thing, at least in-house. Instead, they have shifted to milking their signature inventions — for Google, the search engine; for Facebook, its basic social platform; Microsoft's operating system and Office software; and Apple's suite of "i" products — while keeping a keen eye on the Valley's garage inventors. When a startup produces something truly market-moving, Big Tech leaps into action, copying the breakthrough or attempting to buy the startup outright, such as Facebook's acquisitions of WhatsApp and Instagram, and Google's purchase of Fitbit and a suite of A.I. companies. Big Tech's heft has allowed it to leverage away from a heavy reliance on serendipity.

If so, Big Tech's presumed distance from the vagaries of chance could end up backfiring. The Valley's scrappy startups, the small, currently nameless teams working long hours on an idea developed only on paper, do hope for a bit of kismet to stave off failure and, if the stars can possibly align, make them the next big thing. If the founders, engineers, and designers in such startups are laboring entirely or largely from their own homes, and miss their moment, doesn't Big Tech potentially lose its next big growth machine?

Entrepreneurs say that, at least currently, the answer is yes — the work-from-home mandate has probably put classic serendipity out of reach for Silicon Valley's budding companies. "In the seed or angel stage of work, when you are trying to go from zero to one, you need rapid iteration," said Hathiramani. "That is much harder to solve remotely."

If serendipity's explosive impact in creating the tech world as we know it has been biased in practice, a question is whether anyone should be vexed over its possible diminishment.

Dozens of startups and legacy companies are trying to solve the serendipity crisis. Among them are Gather, a Silicon Valley startup, and Hopin, a U.K. company, both of which see the answer in conference apps: You watch online talks, then — just as you would at a physical conference — you go onto a "coffee break," a virtual room where you can "bump into" just about anyone else at the event. You can also sign up to be paired with people with whom you might have similar interests. "It's like a coffee break at TED," said Paul Saffo, a futurist at Stanford.

Last week, Microsoft released a new feature for its Teams conferencing app called "Together Mode," which uses A.I. to cut out the images of everyone in a call and assemble them in a virtual setting, such as a theater. The sensation is to remove some of the fake-togetherness of Zoom calls, which is a real advance for the typical work meeting. While all of these are valiant attempts, none introduce anything remotely organic. It's the same digital intentionality, dressed in slightly fancier clothes: people sign up, know who is going to be present, and may or may not say or hear something surprising. In other words, if your objective is serendipity, all of it is utterly primitive.

Serendipity may be ripe for a reimagining anyway. That the most colorful and powerful examples of serendipity are a decade and a half or more old reveals a lot: in terms of Big Invention, Silicon Valley has been in a long slump. In papers and a seminal book, Robert Gordon, the economist at Northwestern University, argues that the United States' golden century of invention ended about 1970, and that new products since then have been more or less meh. That is probably an excessively brutal assessment of U.S. invention, but Thiel himself famously groused, "We wanted flying cars. Instead we got 140 characters." Silicon Valley is probably ripe for Serendipity 2.0 — something that looks different from today's ecosystem.

One welcome change would be to address Silicon Valley's dearth of diversity. In recent months and years, as calls for pay equality and greater opportunities for women, Black founders, and other minority professionals have moved to the center of public discussion, it has become increasingly clear that serendipity in the world's tech paradise has mostly benefited only a select, privileged few. From 2000 to 2018, just 2.3% of venture capital funding went to Black founding teams. Last year, only 3% went to female teams, according to Crunchbase. If you were not white and male, you largely watched the action from the sidelines.

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By its nature, serendipity means both being in the right place at the right time, and holding yourself open to an interaction. But entrepreneurs say that Silicon Valley tends to operate according to networks — people are generally receptive to chance encounters, if it's with the people and demographics already in

their personal and professional circles, but tend to be cooler toward those outside them. "So even in the best case, serendipitous interactions will heavily skew to match the tech population, which historically has been predominantly white/cis/male," says Dan Pupius, the white co-founder of Range, a startup that makes software for engineering teams.

Venture capitalist David Hall, who is Black and a partner at Revolution, says that, in the case of Black and women entrepreneurs, serendipity is much harder to come by. Since minority founders are generally not hanging out with future VCs at college, been invited to their parties, or otherwise been part of their circle, connecting with the right people rarely happens organically. "When these 'moments' do occur they are likely the result of a lot of research and networking to find the investors with the most amount of domain overlap with the founders' startup and/or the least amount of exhibited bias," Hall says. "So that when the chance meeting occurs, it sparks of serendipity but has always had to be the result of much more work on the part of the women or minority founder."

If serendipity's explosive impact in creating the tech world as we know it has been biased in practice, a question is whether anyone should be vexed over its possible diminishment. A better, rejuvenated system would arguably be open to any winner.

No one knows exactly what such a new system might look like. And there is a risk if we don't get it right. History's creative hubs have been ephemeral — when Florence declined in the 16th century, it was not replaced by another concentration of artistic genius. The world simply went without. Granted, Florence didn't have Zoom or the cloud, but so far both of those have fallen short in the present crisis. If a demise of serendipity leads to Silicon Valley's decline, the world is unlikely to get an equal substitute. We may simply lose our engine of technological advancement.

We've managed to answer other seemingly insurmountable challenges to serendipity. Lori McCay-Peet, a scholar of serendipity at Dalhousie University in Halifax, said that when public libraries began to go digital in the 1990s, people worried deeply. How would they serendipitously discover a book on a subject they never considered in an intentional environment like a computer? At first, their fears were borne out in uninspired library search software. But, after years of tinkering, McCay-Pett said, today's digital libraries are deeply serendipitous. Traditionalists still head for the stacks, but younger generations argue that better search engines present them with dizzying numbers of unexpected books, articles, and papers.

If the past is instructive, the pandemic will pass and many daily routines will return. Hordes of people will return to the office, but large numbers won't. Some will pick up and move. At that point, today's effort to digitalize serendipity will pick up more urgency. Video conferencing and other software will get better, and some companies will claim their product fosters the unscripted moment in truly innovative ways, blind to demographics. The question is whether that solution will include a continued place for Silicon Valley.