CHANGE THE WORLD

In 1978, the year that I graduated from high school, in Palo Alto, the name Silicon Valley was not in use beyond a small group of tech cognoscenti. Apple Computer had incorporated the previous year, releasing the first popular personal computer, the Apple II. The major technology companies made electronics hardware, and on the way to school I rode my bike through the Stanford Industrial Park, past the offices of Hewlett-Packard, Varian, and Xerox PARC. The neighborhoods of the Santa Clara Valley were dotted with cheap, modern, one-story houses—called Eichlers, after the builder Joseph Eichler—with glass walls, open floor plans, and flat-roofed carports. (Steve Jobs grew up in an imitation Eichler, called a Likeler.) The average house in Palo Alto cost about a hundred and twenty-five thousand dollars. Along the main downtown street, University Avenue—the future address of PayPal, Facebook, and Google—were sports shops, discount variety stores, and several art-house cinemas, together with the shuttered, X-rated Paris Theatre. Across El Camino Real, the Stanford Shopping Center was anchored by Macy's and Woolworth's, with one boutique store—a Victoria's Secret had opened in 1977—and a parking lot full of Datsuns and Chevy Novas. High-end dining was virtually unknown in Palo Alto, as was the adjective "high-end." The public schools in the area were excellent and almost universally attended; the few kids I knew who went to private school had somehow messed up. The Valley was thoroughly middle class, egalitarian, pleasant, and a little boring.

Thirty-five years later, the average house in Palo Alto sells for more than two million dollars. The Stanford Shopping Center's parking lot is a sea of Lexuses and Audis, and their owners are shopping at Burberry and Louis Vuitton. There are fifty or so billionaires and tens of thousands of millionaires in Silicon Valley; last year's Facebook public stock offering alone created half a dozen more of the former and more than a thousand of the latter. There are also record numbers of poor people, and the past two years have seen a twenty-percent rise in homelessness, largely because of the soaring cost of housing. After

decades in which the country has become less and less equal, Silicon Valley is one of the most unequal places in America.

Private-school attendance has surged, while public schools in poor communities—such as East Palo Alto, which is mostly cut off from the city by Highway 101—have fallen into disrepair and lack basic supplies. In wealthy districts, the public schools have essentially been privatized; they insulate themselves from shortfalls in state funding with money raised by foundations they have set up for themselves. In 1983, parents at Woodside Elementary School, which is surrounded by some of the Valley's wealthiest tech families, started a foundation in order to offset budget cuts resulting from the enactment of Proposition 13, in 1978, which drastically limited California property taxes. The Woodside School Foundation now brings in about two million dollars a year for a school with fewer than five hundred children, and every spring it hosts a gala with a live auction. I attended it two years ago, when the theme was RockStar, and one of Google's first employees sat at my table after performing in a pickup band called Parental Indiscretion. School benefactors, dressed up as Tina Turner or Jimmy Page, and consuming Jump'n Jack Flash hanger steaks, bid thirteen thousand dollars for Pimp My Hog! ("Ride through town in your very own customized 1996 Harley Davidson XLH1200C Sportster") and twenty thousand for a tour of the Japanese gardens on the estate of Larry Ellison, the founder of Oracle and the country's highest-paid chief executive. The climax arrived when a Mad Men Supper Club dinner for sixteen guests—which promised to transport couples back to a time when local residents lived in two-thousand-square-foot houses—sold for forty-three thousand dollars.

The technology industry's newest wealth is swallowing up the San Francisco Peninsula. If Silicon Valley remains the center of engineering breakthroughs, San Francisco has become a magnet for hundreds of software start-ups, many of them in the South of Market area, where Twitter has its headquarters. (Half the start-ups seem to have been founded by Facebook alumni.) A lot of younger employees of Silicon Valley companies live in the city and commute to work in white, Wi-Fi-equipped company buses, which collect passengers at fif-

"No, no, I like you. I only meant that we have to make you likable to the jury."

teen or so stops around San Francisco. The buses—whose schedules are withheld from the public—have become a vivid emblem of the tech boom's stratifying effect in the Bay Area. Rebecca Solnit, who has lived in San Francisco for thirty years, recently wrote in *The London Review of Books*, "Sometimes the Google Bus just seems like one face of Janus-headed capitalism; it contains the people too valuable even to use public transport or drive themselves. Right by the Google bus stop on Cesar Chavez Street immigrant men from Latin America stand waiting for employers in the building trade to scoop them up, or to be arrested and deported by the government." Some of the city's hottest restaurants are popping up in the neighborhoods with shuttle stops. Rents there are rising even faster than elsewhere in San Francisco, and in some cases they have doubled in the past year.

The buses carry their wired cargo south to the "campuses" of Google, Facebook, Apple, and other companies, which are designed to be fully functioning communities, not just places for working. Google's grounds, in Mountain View—a working-class town when I was growing up—are modelled on the casual, Frisbee-throwing feel of Stanford University, the incubator of Silicon Valley, where the company's founders met, in grad school. A polychrome Google bike can be picked up anywhere on campus, and left anywhere, so that another employee can use it. Electric cars, kept at a charging station, allow employees to run errands. Facebook's buildings, in Menlo Park, between 101 and the salt marshes along the Bay, surround a simulated town square whose concrete surface is decorated with the word "HACK," in letters so large that they can be seen from the air. At Facebook, employees can eat sushi or burritos, lift weights, get a haircut, have their clothes dry-cleaned, and see a dentist, all without leaving work. Apple, meanwhile, plans to spend nearly five billion

dollars to build a giant, impenetrable ringed headquarters in the middle of a park that is technically part of Cupertino. These inward-looking places keep tech workers from having even accidental contact with the surrounding community. The design critic Alexandra Lange, in her recent e-book, "The Dot-Com City: Silicon Valley Urbanism," writes, "The more Silicon Valley tech companies embrace an urban model, the harder it becomes for them to explain why they need to remain aloof. People who don't have badges aren't just a security risk."

The industry's splendid isolation inspires cognitive dissonance, for it's an article of faith in Silicon Valley that the technology industry represents something more utopian, and democratic, than mere special-interest groups. The information revolution (the phrase itself conveys a sense of business exceptionalism) emerged from the Bay Area counterculture of the sixties and seventies, influenced by the hobbyists who formed the Homebrew Computer Club and by idealistic engineers like Douglas Engelbart, who helped develop the concept of hypertext and argued that digital networks could boost our "collective I.Q." From the days of Apple's inception, the personal computer was seen as a tool for personal liberation; with the arrival of social media on the Internet, digital technology announced itself as a force for global betterment. The phrase "change the world" is tossed around Silicon Valley conversations and business plans as freely as talk of "early-stage investing" and "beta tests."

When financiers say that they're doing God's work by providing cheap credit, and oilmen claim to be patriots who are making the country energy-independent, no one takes them too seriously—it's a given that their motivation is profit. But when technology entrepreneurs describe their lofty goals there's no smirk or wink. "Many see their social responsibility fulfilled by their businesses, not by social or political action," one young entrepreneur said of his colleagues. "It's remarkably convenient that they can achieve all their goals just by doing their start-up." He added, "They actually think that Facebook is going to be the panacea for many of the world's problems. It isn't cynicism—it's arrogance and ignorance."

A few years ago, when Barack Obama visited one Silicon Valley campus, an employee of the company told a colleague that he wasn't going to take time from his work to go hear the President's remarks, explaining, "I'm making more of a difference than anybody in government could possibly make." In 2006, Google started its philanthropic arm, Google.org, but other tech giants did not follow its lead. At places like Facebook, it was felt that making the world a more open and connected place could do far more good than working on any charitable cause. Two of the key words in industry jargon are "impactful" and "scalable"—rapid growth and human progress are seen as virtually indistinguishable. One of the mottoes posted on the walls at Facebook is "Move fast and break things." Government is considered slow, staffed by mediocrities, ridden with obsolete rules and inefficiencies.

Reid Hoffman, the co-founder of the professional network LinkedIn and an investor in dozens of Silicon Valley firms, told me, "In investing, you want to have milestones that go between three and twelve months, to know you're making progress. The government *purchasing process* is a year plus!" Joshua Cohen, a Stanford political philosopher who also edits *Boston Review*, described a conversation he had with John Hennessy, the president of Stanford, who has extensive financial and professional ties to Silicon Valley. "He was talking about the incompetent people who are in government," Cohen recalled. "I said, 'If you think they're so incompetent, why don't you include in a speech you're making some urging of Stanford students to go into government?' He thought this was a ridiculous idea."

In a 2008 interview, Mark Zuckerberg recounted how young Lebanese Muslims who might have been tempted by extremism broadened their views after going on Facebook and friending people "who have gone to Europe." He suggested that the social network could help solve the problem of terrorism. "It's not out of a deep hatred of anyone," Zuckerberg offered. "It comes from a lack of connectedness, a lack of communication, a lack of empathy, and a lack of understanding." Successive U.S. Administrations had failed to resolve the Israeli-Palestinian conflict; perhaps the answer was to get as many people as possible

on Facebook.

The conflicting pressures of Silicon Valley—its work ethic, status consciousness, idealism, and greed—were summed up in an ad for the University of San Francisco that I spotted on a public bus shelter south of Market Street: "Become wildly successful without becoming a jerk no one likes. Change the world from here."

The technology industry, by sequestering itself from the community it inhabits, has transformed the Bay Area without being changed by it—in a sense, without getting its hands dirty. Throughout most of Silicon Valley's history, its executives have displayed a libertarian instinct to stay as far from politics and government as possible. Reid Hoffman described the attitude this way: "Look what I can do as an individual myself—everyone else should be able to do that, too. I can make a multibillion-dollar company with a little bit of investment. Why can't the whole world do that?" But the imperative to change the world has recently led some Silicon Valley leaders to imagine that the values and concepts behind their success can be uploaded to the public sphere.

When Zuckerberg created Facebook, in 2004, he was a sophomore at Harvard. Most of his roommates joined the effort, but Joe Green did not. Zuckerberg and Green, who were members of Harvard's Jewish fraternity, had collaborated on Facemash, a site where Harvard students could rate the hotness of their classmates. This brought them both before the university's disciplinary board, and Green's father, a U.C.L.A. math professor, was not pleased. In any case, Green didn't really consider himself a tech person—he was a political guy. At Santa Monica High School, he had won the student seat on the local school board and organized a living-wage campaign. At Harvard, he studied under Marshall Ganz, the theorist of community activism, and for his senior thesis he interviewed working-class men in Louisville about their ideas of economic opportunity and the American Dream. (In general, they believed that people were fundamentally equal and that income distribution should reflect that.) In the summer of 2003, between his sophomore and junior years, Green volunteered for

John Kerry's Presidential campaign in New Hampshire, where he realized that the job of a political organizer would be much easier if everyone were on Friendster—an early, and doomed, social network that he had joined. He returned to Harvard, and urged Zuckerberg to use his programming talent to build a political social network. But Zuckerberg was more interested in starting a business. He had an idea for a college social network.

"No more Zuckerberg projects," Green's father warned him. And so Green chose not to drop out and move to Silicon Valley with Zuckerberg and the other roommates. That summer, while Facebook was being created, he went to work as a Kerry field organizer in Arizona and Nevada. For years afterward, Zuckerberg teased him: instead of getting billions of dollars, he'd lost two states for Kerry.

In another era, Green might have gone on to an internship at *The Nation* or a job on Capitol Hill. Instead, he headed West after graduating and, with no programming skills, started two technology companies. In 2007, he and Sean Parker, the Silicon Valley entrepreneur, launched Causes, a Facebook application that helps grass-roots organizations and nonprofits raise money. Last year, Green created* NationBuilder, a software platform that provides digital tools for political campaigns and community organizers. Green was better at starting things than at running them, and he was eventually removed from the leadership of both companies, the second one this past February. (Green says that his departures were voluntary.) All the while, he continued to try to interest his ex-roommate in politics, but for a long time Zuckerberg was interested only in his own company.

"People in tech, when they talk about why they started their company, they tend to talk about changing the world," Green said. "I think it's actually genuine. On the other hand, people are just completely disconnected from politics. Partly because the operating principles of politics and the operating principles of tech are completely different." Whereas politics is transactional and opaque, based on hierarchies and handshakes, Green argued, technology is empirical

and often transparent, driven by data.

In 2010, just ahead of the première of the film "The Social Network," which portrayed the origins of Facebook in an unflattering light, Zuckerberg announced that he would pledge up to a hundred million dollars to the Newark public-school system—his first visible foray into philanthropy. The money was intended to encourage certain reforms in the education bureaucracy, including merit pay for teachers. Green pointed out that Zuckerberg was spending a lot of money just to change the rules in one mid-sized urban school district. He could spend that money in politics and potentially be more effective.

I recently met with Marc Andreessen, a general partner in one of Silicon Valley's most powerful venture-capital firms, Andreessen Horowitz. His office, in an idyllic ghetto of similar companies on Sand Hill Road, in Menlo Park, was clearly inspired by the décor of "Mad Men": paintings by Robert Rauschenberg and other American artists of the sixties, a sideboard displaying bottles of expensive whiskey. On his desk sat the record-player that adorned the office of Pete Campbell in the show's first three seasons. Andreessen is a big, bullet-headed man from Wisconsin, with a blunt, fast-talking manner. He supported Obama in 2008 but switched to Mitt Romney last year, because, he told me, Romney was a superb chief executive.

Andreessen described to me the stages of the industry's attitude toward political engagement. The first, prevailing in the seventies and eighties, was "Just leave us alone. Let us do our thing." T. J. Rodgers, the founder of Cypress Semiconductor, said that anyone who got involved in politics was making a big mistake, warning, "If you talk to these people, they'll just get in your ass." The Valley's libertarianism—which ignores the federal government's crucial role in providing research money—is less doctrinal than instinctive. Andreessen said, "It's very possible for somebody to show up here—a twenty-four-year-old engineer who's completely state of the art in building companies and products— and have had absolutely no exposure at all to politics, social issues, history. When the government shows up, it's bad news. They go, 'Oh, my God, govern-

ment is evil, I didn't understand how bad it was. We must fight it.'"

Andreessen himself once fit this type. In 1993, when he was just twenty-one, he helped develop Mosaic, the first popular Web browser. After the company he co-founded, Netscape, launched its Navigator browser, the government insisted that its encryption—which was so strong that U.S. intelligence couldn't break it—be weakened for foreign sales, so that terrorists and other criminals couldn't use Netscape's cryptography. This demand required the company to create a different product for export. Ben Horowitz, Andreessen's partner, who ran Netscape's product division, said, "It's hard to describe what a fucking royal pain in the ass this was. We were totally flabbergasted." Later, after other technology leaders were given classified briefings on how terrorists operated, he and Andreessen realized that the Feds had a point. "Maybe they didn't totally understand all the implications of everything," Horowitz said. "But we didn't understand their job, either." Eventually, industry arguments prevailed and the government, which didn't want foreign competitors to gain an advantage over U.S. businesses, withdrew its request.

Horowitz—who is the son of David Horowitz, the radical turned conservative polemicist—attributed Silicon Valley's strain of libertarianism to the mentality of engineers. "Libertarianism is, theoretically, a relatively elegant solution," he said. "People here have a great affinity for that kind of thing—they want elegance. Most people here are relatively apolitical and not that knowledgeable about how these large complicated systems of societies work. Libertarianism has got a lot of the false positives that Communism had, in that it's a very simple solution that solves everything." The intellectual model is not the dour Ayn Rand but Bay Area philosophers and gurus who imagine that limitless progress can be achieved through technology. Stewart Brand, now seventy-four, popularized the term "personal computer" and made "hacker" the tech equivalent of freedom fighter. His Whole Earth Catalog—a compendium of hippie products, generated by users, that is now considered an analog precursor of the Web—can still be found on desks at Facebook.

In the past fifteen years or so, Andreessen explained, Silicon Valley's hands-off attitude has changed, as the industry has grown larger and its activities keep colliding with regulations. Technology leaders began to realize that Washington could sometimes be useful to them. "A small number of very high-end Valley people have got involved in politics, but in a way that a lot of us think is relentlessly self-interested," Andreessen said. The issues that first animated these technology executives were stock options, subsidies, and tax breaks. "They started giving the Valley a bad name in Washington—that the Valley was just another special-interest group."

In early 2011, Zuckerberg, Steve Jobs, and other Silicon Valley moguls attended a dinner with President Obama in Woodside, at the home of John Doerr, a venture capitalist with ties to the Democratic Party. Instead of having a wide-ranging discussion, the tech leaders focussed narrowly on pet issues. John Chambers, of Cisco, kept pushing for a tax holiday on overseas profits that are reinvested in the United States. According to Walter Isaacson's biography of Jobs, while Chambers was lobbying Obama, over cod and lentil salad, Zuckerberg turned to Valerie Jarrett, the President's adviser, and whispered, "We should be talking about what's important to the country. Why is he just talking about what's good for him?" When it was Jobs's turn, he asked for more H-1B visas for foreign students who earn engineering degrees in the U.S.—a longtime Silicon Valley desire. Obama told him that the issue could be addressed only in the context of broader immigration reforms, such as allowing children who had arrived here illegally with their parents to gain legal status.

Zuckerberg came away from the gathering impressed with Obama but sorely disappointed in his own industry. The most dynamic sector of the American economy had no larger agenda.

Zuckerberg spoke about his concerns with Green, who said that the country's biggest challenge was to equip more Americans to benefit from the Information Age. With so many jobs lost to automation, and more wealth concentrated in fewer hands, that prospect was slipping farther away. Silicon Valley was racing

into the future, but the kinds of people Green had interviewed in Louisville were becoming increasingly marginal. Fixing this dynamic would require the expertise, the time, and the money of technology leaders. "How do we move America into the knowledge economy?" Green asked me. "And how do we create a voice for the knowledge community that is about the future and not selfish? If we organize this community, it could be one of the most powerful voices in politics." He dropped the idea of selflessness. "I think our selfish interest actually aligns with the broader interest of creating jobs and growing the economy."

Earlier this year, Zuckerberg began teaching a class on entrepreneurship, one afternoon a week, to middle-school students in a poor community near Facebook's headquarters. He decided to ask his students about their college plans. One young man said that he might not be able to attend college, because he and his parents had illegally entered the country, from Mexico, when he was a baby. The story stuck with Zuckerberg. After the Republican losses in the 2012 elections, comprehensive immigration reform—including more H-1B visas—suddenly seemed possible in Washington. It also looked like the most promising issue for technology leaders to organize around—a case of self-interest aligning with the broader interest.

Zuckerberg and Green began talking to Silicon Valley leaders about starting a political-advocacy group: Andreessen; Horowitz; Reid Hoffman; Marissa Mayer, of Yahoo; Eric Schmidt, of Google; and at least three dozen others. The interest was strong, as if they had all been waiting for something like this. Though Andreessen and Horowitz didn't join the project, Andreessen thought it represented "the maturation of the industry" and a greater level of engagement in politics—"deeper, longer-term, with, frankly, more money."

Hoffman, who believes that immigration reform would right a wrong and also create new jobs at every level, from software engineers to dry cleaners, told Zuckerberg, "The normal Silicon Valley thing is to focus on high-end visas and say, 'The rest of it's not my problem.'"

"Yes," Zuckerberg said. "But there's this huge moral component. We might as well go after all of it."

"O.K., good," Hoffman said. "I'm in."

Earlier this year, Green wrote up a fifteen-page plan—subsequently leaked to Politico—which had more to do with tapping Silicon Valley's potential as a political force than with the issue of immigration. One section of the text listed several reasons that "people in tech" could be organized into "one of the most powerful political forces," including, "Our voice carries a lot of weight because we are broadly popular with Americans." This spring, the founders held a dinner, and pledged money from their personal fortunes; reportedly, the collective goal was fifty million dollars. A staff was hired in San Francisco, and political consultants from both parties were engaged in Washington. One afternoon last month, Green sat on the sunny rooftop terrace of a friend's town house in Pacific Heights, just south of the Presidio, with views of the Golden Gate Bridge and the Marin hills. He was barefoot, in jeans and a red T-shirt, with his left leg propped on a decorative rock bowl and immobilized in a brace. (He had broken it skiing.) A young assistant named Manny brought water and walnuts. Green's frizzy hair fluttered in the wind blowing off the ocean as he worked his phone and his MacBook Air, which was decorated with a sticker that said, "The Dream Is Now." An op-ed by Zuckerberg was going to run in the Washington *Post* the next morning, announcing the formation of a new group in Silicon Valley, called FWD.us. "I'm the president of the organization," Green said. "There will be an actual office." He was returning to his first passion, political organizing. His wide, stubbly face broke into a smile: he had spent ten years trying to convince Zuckerberg that politics matters, and he had finally done it.

Gavin Newsom was the mayor of San Francisco from 2004 to 2011. He became nationally known when, in 2004, he legalized gay marriage in the city, despite a statewide ban. He currently suffers the indignities of being California's lieutenant governor, but he is talked about as a successor to Governor Jerry Brown, if not a Presidential candidate. He's tall, with perfect teeth, almost provokingly

handsome, and also self-mocking ("I'd go after a guy like me—gelled hair"), with a jock's stride and habit of calling other men "bro." We met in a cavernous private club, near the Embarcadero waterfront, which is known as Founders Den, and provides a "home base" for select start-ups and "experienced entrepreneurs who are between projects." Newsom rents a desk there—it's his San Francisco office, and he wants to be considered part of the tech cohort. He stopped by the desks of hackers, who looked up from their laptops to greet the ex-mayor.

Earlier this year, Newsom, an obsessive reader of business books, published "Citizenville: How to Take the Town Square Digital and Reinvent Government," featuring blurbs from Bill Clinton, Cory Booker, Michael Bloomberg, Stewart Brand, Arianna Huffington, and the founders of Yelp, Craigslist, and SalesForce; most of them were interviewed for the book. "In the private sector and in our personal lives, absolutely everything has changed over the last decade," Newsom writes. "In government very little has. . . . Technology has rendered our current system of government irrelevant, so now government must turn to technology to fix itself." This is the book's breezily apocalyptic theme. As mayor, Newsom became friends with Sergey Brin and Larry Page, the founders of Google; instituted smart parking meters; and used cloud computing to collect data on the needs of the city's large homeless population. Project Homeless Connect, as the effort was named, greatly improved San Francisco's ability to provide the homeless with services—if people complained of tooth pain, say, volunteers could tell them where to get free dental care. It's considered one of Newsom's successes, and has been replicated in hundreds of other cities. But people I spoke with also said that Newsom's use of technology in government sometimes seemed like a flashy distraction. In 2008, instead of delivering his State of the City address before a live audience, Newsom uploaded a seven-and-a-half-hour speech to YouTube; after being ridiculed, he abandoned the practice.

Since then, Newsom has become even more of a believer in tech as the answer to what ails government. "Citizenville" represents thinking by analogy, and it's

useful primarily as a guide to concepts and slogans about government in the age of the Internet that are currently circulating in the vapor of conferences, political speeches, and TED Talks. ("Gov 2.0" is the term coined by the tech publicist Tim O'Reilly; he also coined the earlier term "Web 2.0.") Technology has flattened hierarchies. Data empowers people. Government is not a vending machine, with bureaucrats dispensing services, but a platform—like Facebook, Twitter, and the iPhone—where citizens can build their own apps and interact with one another and come up with their own solutions.

"We have to meet the people where they are," Newsom argues. "And where they are right now is playing games and spending time on social-networking sites." Online games that draw people into collective competitions, like FarmVille—the inspiration for the book's title—can be models for civic improvements, by enlisting both government officials and citizens in contests to find solutions for urban problems like potholes, and handing out prizes to the winners. Why not use "gamification" to improve service at the Bronx and Brooklyn D.M.V.s, by pitting them against each other in a competition? Crowdsourcing, à la Kickstarter, points the way to funding public projects by raising money from interested citizens. Newsom writes, "What if you *could* create competition among city services . . . through a kind of government Yelp? Then we'd be on to something."

"Citizenville," which seems to be unread, if not unknown, where its heroes live and work, has won praise from no less than Newt Gingrich. This shouldn't be surprising, since its terms point toward an arrangement in which many of the tasks of government are outsourced to citizens empowered with smartphones. When Newsom acknowledged that San Francisco was becoming unaffordable to many residents—"Can't have a vibrant democracy without a vibrant middle class"—I asked how "Citizenville" addressed this problem.

"I don't know that it does," Newsom said. "I'd like to have an answer to that. I didn't take that on squarely. I was looking at competence in government."

Technology can be an answer to incompetence and inefficiency. But it has little to say about larger issues of justice and fairness, unless you think that political problems are bugs that can be fixed by engineering rather than fundamental conflicts of interest and value. Evgeny Morozov, in his new book "To Save Everything, Click Here," calls this belief "solutionism." Morozov, who is twenty-nine and grew up in a mining town in Belarus, is the fiercest critic of technological optimism in America, tirelessly dismantling the language of its followers. "They want to be 'open,' they want to be 'disruptive,' they want to 'innovate,' " Morozov told me. "The open agenda is, in many ways, the opposite of equality and justice. They think anything that helps you to bypass institutions is, by default, empowering or liberating. You might not be able to pay for health care or your insurance, but if you have an app on your phone that alerts you to the fact that you need to exercise more, or you aren't eating healthily enough, they think they are solving the problem."

Steven Johnson, the author of many books about technology, recently published "Future Perfect: The Case for Progress in a Networked Age." Johnson argues that traditional institutions and ideologies are giving way to a new philosophy, called "peer progressivism," in which collective problems are solved incrementally, through the decentralized activity of countless interconnected equals—a process that mirrors the dynamics of the Internet. In politics, peer progressivism could mean the rise of "citizen journalists" tweeting and posting on social media, or an innovation that Johnson calls "liquid democracy," which would allow you to transfer your vote to a friend who is more knowledgeable about, say, the school board. In this thin book, Johnson takes progress as a given, without seriously considering counter-arguments about stagnation and decline. It would be foolish to argue that America's mainstream media and political system are functioning as they should, but it's worth wondering if "peer networks" really have the answers. An essay in the journal *New Media & Society*, by Daniel Kreiss, of Yale; Megan Finn, of Berkeley; and Fred Turner, of Stanford, points out that a system of "peer production" could be less egalitarian than the scorned old bureaucracies, in which "a person could achieve the proper credentials and thus social power whether they came from wealth or

poverty, an educated family or an ignorant one." In other words, "peer net-works" could restore primacy to "class-based and purely social forms of capital," returning us to a society in which what really matters is whom you know, not what you could accomplish.

A favorite word in tech circles is "frictionless." It captures the pleasures of an app so beautifully designed that using it is intuitive, and it evokes a fantasy in which all inefficiencies, annoyances, and grievances have been smoothed out of existence—that is, an apolitical world. Dave Morin, who worked at Apple and Facebook, is the founder of a company called Path—a social network limited to one's fifty closest friends. In his office, which has a panoramic view of south San Francisco, he said that one of his company's goals is to make technology increasingly seamless with real life. He described San Francisco as a place where people already live in the future. They can hang out with their friends even when they're alone. They inhabit a "sharing economy": they can book a weeklong stay in a cool apartment through Airbnb, which has disrupted the hotel industry, or hire a luxury car anywhere in the city through the mobile app Uber, which has disrupted the taxi industry. "San Francisco is a place where we can go downstairs and get in an Uber and go to dinner at a place that I got a restaurant reservation for halfway there," Morin said. "And, if not, we could go to my place, and on the way there I could order takeout food from my favorite restaurant on Postmates, and a bike messenger will go and pick it up for me. We'll watch it happen on the phone. These things are crazy ideas."

It suddenly occurred to me that the hottest tech start-ups are solving all the problems of being twenty years old, with cash on hand, because that's who thinks them up.

In the real San Francisco, as elsewhere, Morin added, things don't always work very well: "There are all kinds of infrastructure problems that are, like, really, guys? This is San Francisco. The fact that some of the buses still run on diesel is crazy, or that the bus stop doesn't talk to your iPhone." Newsom, in his book, describes an innovation in which hackers created an iPad app that allowed mu-

nicipal transport workers to keep track of the status of trains and buses without standing on the street with clipboards and watching them go by. "What I'd like to see is 'Hackers 10,000, City 0,' " Newsom writes. "This is the perfect example of how the government can do best by simply getting out of the way." (Unfortunately, as Newsom notes, San Francisco's "budget crunch means the city hasn't yet bought the iPads needed to fully implement the app.") If innovation put the public-transportation system in San Francisco out of business, Newsom said, "I'm not inherently offended by that notion." Page and Brin, of Google, have led him to think that the company's emerging fleet of driverless cars might make long-term spending on high-speed rail in California irrelevant.

Near the Caltrain station south of Market Street, a twenty-nine-year-old entrepreneur named Logan Green is trying to realize something like this vision. Green grew up in Southern California and attended the University of California at Santa Barbara, where he decided to get by without a car, so that the inconvenience would force him to find creative solutions to transit and environmental problems. He joined the county transportation board, and found that the bus routes made no sense but couldn't be fixed, because of budget shortfalls and pressure from constituents.

"I learned that it's an incredibly broken and unscalable system," Green said. "I came out thinking, God, government's really not the right place to experiment with anything new. Government's really not the right place to look to solve these problems and to create innovative solutions and scalable solutions in transportation. This really belongs more in the private sector, where you're not burdened with all these impossible restrictions."

Last year, Green co-founded Lyft, a "rideshare" company with services in San Francisco and other cities. Its motto is "Your friend with a car." Through a mobile app, customers can call a car driven by an ordinary citizen who has been approved by Lyft, and who is available to give rides while going about his regular business. The cars have a telltale fuzzy pink mustache fastened to the front grille. "You get in the front seat, and the driver gives you a fist bump," Green

explained. "It's a peer-to-peer relationship, not a service relationship." The customer pays a suggested donation, twenty per cent of which goes to Green's company. So far, Lyft has registered several hundred drivers, and Green hopes that a crowdsourced transportation system like Lyft will ultimately replace the existing public one, perhaps with a fleet of Google's driverless cars. That, however, would mean no fist bump.

San Francisco is becoming a city without a middle class. Pockets of intense poverty, in districts like the Fillmore and the Tenderloin, are increasingly isolated within the general rise of exorbitantly priced housing. The black population has dwindled from more than ten per cent of the electorate, in 1970, to less than four per cent today—that's not enough people to fill the forty thousand seats at A.T.&T. Park, where the Giants play. The number of Latinos is increasing much more slowly than elsewhere in California. Rent control and other features of the city's traditional liberalism still hold in check a mass exodus of all San Franciscans who don't work in tech, but it's common to hear stories of working families pushed south, into Bayview or Daly City, or across the bridge, into the East Bay.

Christina Olague, a former member of the city's Board of Supervisors, took me on a tour of several blocks in the Mission District, where she works at a nonprofit that prepares low-income people for whatever jobs might be available. The Mission, once a Latino neighborhood, has become extremely popular with technology workers. We met at a café, on Valencia Street, called Four Barrel Coffee, which offers single-origin, hand-roasted craft coffee. Olague, who is in her fifties, is the daughter of Mexican farmworkers, and was once active in a local group called the Mission Anti-Displacement Coalition. "This is the kind of place I used to protest," she told me, looking around at the young Apple users. "And now here I am, hanging out, waiting for half an hour to get a cup of coffee." She was having trouble connecting with the newcomers. "People seem more self-absorbed, maybe more individualistic in a way, less empathetic," she went on. "They're really addicted to their iPads or phones. They communicate more, but there's less communication with the people they're actually around."

Her larger complaint, though, was about the techies' indifference to the pain that their industry's triumph is inflicting on many people who have been a part of the fabric of San Francisco for decades. "Everyone's kind of wary, I think. A lot of people in the tech industry, sadly, feel judged—because they are."

Out on Valencia Street, Olague took me past an eyeglass boutique that had replaced a bookstore and, in the twin bays of a vanished auto-body shop, two artisanal establishments: one made pastries, the other chocolate. On the wall of the pastry shop, there were quotes that appealed to the customers' idea of their jobs as inspirational callings, including one from Saint-Exupéry: "If you want to build a ship don't gather people together to collect wood and don't assign them tasks and work but rather teach them to long for the endless immensity of the sea." In all the new restaurants, the menus highlighted locally sourced food. "But where are the local people?" Olague said. A few unmarked doors led up to S.R.O. hotels, protected by the city's affordable-housing ordinances, where immigrant families squeezed into one room. But no one on the sidewalk was speaking Spanish.

In the past few years, San Francisco's political leaders have grown close to the technology companies. Corey Cook, a political scientist at the University of San Francisco, who focusses on local politics, said, "The dominant narrative of the city is 'What's good for the tech industry is good for San Francisco.' " Historically, he said, what was good for General Motors wasn't always good for the country: there was conflict between business and labor, which was resolved by insuring that factories offered middle-class jobs. He added, "Now there's no conflict, but there are no middle-class jobs."

In 2011, Twitter, whose San Francisco headquarters employs a thousand people but draws tourists from around the world—the company turns them away— threatened to move out of the city. Liberal candidates in the mayoral election lined up to offer the company tax breaks, and called existing taxes "job killers." Cook said, sardonically, "It's Twitter! Twitter *has* to be in San Francisco." There was far less concern at City Hall when, in 2006, the 49ers announced their in-

tention to move to Santa Clara.

Newsom's successor, Ed Lee, was elected with the support of a technology investor named Ron Conway, who organized several hundred companies into an interest group called sf.citi. Conway told me, "We got Lee elected mayor, and he did two things for the tech community: he stopped the private companies' stock-option tax, and he kept Twitter in San Francisco." Conway also spent money to help a challenger take Olague's seat on the Board of Supervisors. (Olague was considered an obstacle to development projects.) Once in office, Mayor Lee intervened in regulatory matters in ways that benefitted two companies in which Conway is a major investor. Conway is involved in Zuckerberg's immigration-reform group, and after the Newtown massacre he enlisted members of sf.citi in a campaign against gun violence. But the main purpose of sf.citi is to persuade the city government to make policies that benefit the technology industry. When I asked Conway if sf.citi's interests might ever diverge from the general public's, he couldn't think how they might. The handshake between the industry and City Hall is so strong that people in San Francisco insisted on going off the record before saying that Lee has made himself look like Conway's man.

Cook predicted that if, with the tech industry's money and competence, schools improved and buses ran on time then San Franciscans would put up with the soaring cost of living. He added, "But if that doesn't happen, and it's just seen as an agglomeration of wealth, then it won't be win-win-win, and there could be a backlash."

One question for technology boosters—maybe the crucial one—is why, during the decades of the personal computer and the Internet, the American economy has grown so slowly, average wages have stagnated, the middle class has been hollowed out, and inequality has surged. Why has a revolution that is supposed to be as historically important as the industrial revolution coincided with a period of broader economic decline? I posed the question in one form or another to everyone I talked to in the Bay Area. The answers became a measure

of how people in the technology industry think about the world beyond it.

Few of them had given the topic much consideration. One young techie wondered if it was really true; another said that the problem was a shortage of trained software engineers; a third noted that the focus of the tech industry was shifting from engineering to design, and suggested that this would open up new job opportunities. Sam Lessin, who leads Facebook's "identity product group," which is in charge of the social network's Timeline feature, posited that traditional measures of wealth might not be applicable in the era of social media. He said, "I think as communication technology gets less expensive, and people can entertain each other and interact with each other and do things for each other much more efficiently, what's actually going to happen is that the percentage of the economy that's in cash is going to decline. Some people will choose to build social capital rather than financial capital. Given the opportunity to spend an extra hour or an extra dollar, they will choose to spend time with friends. It might be that the G.D.P., in the broader sense, is actually growing quite quickly—it's just that we're not measuring it properly."

We were talking in a Facebook conference room. Posters on nearby walls bore the messages "Keep Shipping" and "What Would You Do If You Weren't Afraid?" Lessin, wearing a green T-shirt and jeans, with a baseball cap that had "/lessin" on the front, spoke very quickly while drawing a graph—first on a napkin, then on a whiteboard—that plotted the vectors of technology, social capital, and cash, with tech rising fastest, social not far behind, and cash starting to lag. Lessin was a classmate of Zuckerberg's at Harvard. His late father was a prominent investment banker, and Lessin grew up in a New Jersey suburb where he understood the adult world through the filter of "Seinfeld." This led him to formulate the Kramer Principle: nearly all the annoyances that gave the show its jokes—the time wasted trying to track down a friend, the inefficiencies that lead to ridiculous misunderstandings—had been "kind of erased." He said, "Most of those problems are now gone because of smartphones, G.P.S., traffic maps, texting, messaging. That's a huge deal. That's moving the ball forward—making people more efficient with their time and able to effec-

tively live longer lives therefore, you know, and making them happier." Lessin found it impossible to believe that people's lives had not improved since the days of "Seinfeld," because of technology.

Not everyone in Silicon Valley is so sanguine. Joshua Cohen, the Stanford political philosopher, founded Stanford's Program on Global Justice, where he has done research on how the supply chains of corporate products can be improved in the areas of fair compensation, working conditions, and the right of workers to organize. Since 2011, Cohen has also been a half-time professor at Apple University, down the street from Apple's headquarters, which offers courses to its executives on company culture and related topics. According to "Inside Apple," by Adam Lashinsky, one course focussed on "the fallen grocery store chain A&P as an example of what happened to a company that once dominated its field." The classrooms—sleek and white, like the company's devices, with huge black screens at the front—bear names that span the social sciences and the literature of hipness: "Margaret Mead," "Tocqueville," "Kerouac," "Pirsig."

In his office, Cohen freely criticized the tech industry for its casual optimism in assuming that its products can change the world. He said, "There is this complete horseshit attitude, this ridiculous attitude out here, that if it's new and different it must be really good, and there must be some new way of solving problems that avoids the old limitations, the roadblocks. And with a soupçon of 'We're smarter than everybody else.' It's total nonsense."

But, when it came to Apple, he insisted that anything he said about the company had to be off the record, including the titles and the content of the courses he teaches. When I asked how he viewed the relation between the information revolution and inequality, he hesitated. He started to answer, then hesitated again: "Um. I don't have any deep thoughts about it. I wish I did." This seemed surprising, since Cohen, an expert on democracy and justice, co-edited a book called "The New Inequality," in the late nineties, before it was a hot topic, and has devoted many pages of *Boston Review* to the subject. I had imagined that his

perch at Apple University would give him the perfect vantage point to think about just this problem. Later, I wondered if the question had put Cohen on the defensive. It was Steve Jobs, after all, who told President Obama that Apple's manufacturing jobs would not be coming back from China. Apple's position on issues like inequality was expressed last year by an executive who said, "We don't have an obligation to solve America's problems. Our only obligation is making the best product possible."

One obstacle in Silicon Valley to thinking about conditions in the rest of the country is the tech world's belief in itself as a meritocracy. "Not an aspirational meritocracy but an actual one," Mitch Kapor, who founded the software company Lotus, in the early eighties, told me. In this view, he explained, "it's the best and the brightest who have succeeded here." Kapor and his wife, Freada, now run a foundation, in Oakland, that seeks to make the benefits of technology more equally available. Kapor said that asking questions about the lack of racial and gender diversity in tech companies leaves people in Silicon Valley intensely uncomfortable. For example, only eight per cent of venture-backed tech start-ups are owned by women, and, in a region where Hispanics make up nearly a quarter of the working-age population, they constitute less than five per cent of employees in large tech companies; the representation of both Hispanics and blacks is actually declining. People in Silicon Valley may be the only Americans who don't like to advertise the fact if they come from humble backgrounds. According to Kapor, they would then have to admit that someone helped them along the way, which goes against the Valley's self-image.

The young start-up entrepreneur insisted that a person's race, gender, or class "just doesn't matter here. It's not a positive or a negative. What's cool here is having a lot of money—everybody knows you have a lot of money, but you don't show it off. Money is the metric by which people view and judge success, but, unlike in Hollywood or New York, you have to be very careful about how you spend that money." The way to convey status in Silicon Valley is by wearing jeans, driving a Tesla, and casually mentioning that you were hired at Facebook in 2005 and invested in Twitter in 2008. But, as the wealth reaches spec-

tacular levels, these self-conscious restraints are breaking down amid displays of hedge-fund-level decadence. Last June, David Sacks, a former PayPal executive who founded Yammer, a social network for businesses, threw himself a fortieth-birthday party, in a Los Angeles château, that was rumored to have cost $1.4 million; the theme was "Let Him Eat Cake," with attendees dressed in Louis XVI costumes, and entertainment by Snoop Dogg. (Sacks, forgetting what kind of world he and his friends have created, ordered his several hundred guests not to share any of this on social media. The first picture from the party was tweeted by Snoop.) Soon after his birthday bash, Sacks sold Yammer to Microsoft, then bought a twenty-million-dollar fixer-upper in Pacific Heights. When I interviewed him, two years ago, Sacks said, "Part of believing in capitalism is you don't have to feel guilty about wanting to make money." Not to be outdone, Sean Parker is reportedly spending at least nine million dollars for his upcoming wedding, in Big Sur.

The ideal of a frictionless world, in which technology is a force for progress as well as a source of wealth, leaves out the fact that politics inevitably means clashing interests, with winners and losers. Silicon Valley tends to ignore even its own version of conflict: beneath its much popularized stories of aspiration and success is a netherworld of ruthless struggle that punishes more people than it rewards. "This is one of the things nobody talks about in the Valley," Andreessen told me. Trying to get a start-up off the ground is "absolutely terrifying. Everything is against you." Many young people wilt under the pressure. As a venture capitalist, he hears pitches from three thousand people a year and funds just twenty of them. "Our day job is saying no to entrepreneurs and crushing their dreams," he said. Meanwhile, "every entrepreneur has to pretend in every interaction that everything is going great. Every party you go to, every recruiter, every press interview—'Oh, everything's fantastic!'—and, inside, your soul is just being chewed apart, right? It's sort of like everybody's fake happy all the time."

One day, I dropped by the offices of a start-up company called Delphi, just down the road from Google, in Mountain View. Delphi makes software that al-

lows cities to put large amounts of financial data online for public use. Two of its founders are Nate Levine, who is twenty-two, and Zac Bookman, who is thirty-three. They had just ordered pizza for lunch, and they seemed to be all but sleeping at the company. In a spare room, there was an austere metal bunk bed.

Levine, still working toward a degree in electrical engineering at Stanford, mentioned that he had graduated from Gunn High School, in Palo Alto; I also graduated from there, in 1978. Since then, the percentage of black and Latino students has dwindled, the Asian population has grown, and income levels have risen, as Palo Alto has become one of the country's most expensive communities. According to Levine, families move across the ocean to send their children to Gunn, where the competition to get into a good college is so intense that students struggle to inflate their grade-point averages above 4.0 while piling on as many extracurriculars as possible.

"It became a very stressful environment," Levine said. "I don't know if you knew about the suicides."

Over a period of several months in 2009, the year Levine graduated, five Gunn students jumped in front of a commuter train at the same Palo Alto crossing. One girl died a few days before graduating, Levine told me, having got into her first-choice college. A number of other attempts were stopped by a guard who was posted at the spot. Levine described the culture of a school and a community in which great expectations are placed on people at a young age: "I felt it. When you're fourteen or thirteen, you realize that you're expected to go to a good school. And then the Silicon Valley pressure, you feel this at Stanford, too. You get in as a freshman, and you're expected to start a fifty-million-dollar company. And I know a lot of people who are, I would argue, in not great mental states."

Young people drawn to Silicon Valley can be more insular than those in other industries—they tend to come from educated families and top universities, and

achieve success at a very early age. "They're ignorant, because many of them don't feel the need to educate themselves outside their little world, and they're not rewarded for doing so," the young start-up entrepreneur said. "If you're an engineer in Silicon Valley, you have no incentive to read *The Economist*. It's not brought up at parties, your friends aren't going to talk about it, your employers don't care." He found that college friends who came out to the Valley to seek their fortune subsequently lost interest in the wider world. "People with whom I used to talk about politics or policy or the arts, they're just not as into it anymore. They don't read the *Wall Street Journal* or the New York *Times*. They read *TechCrunch* and *VentureBeat*, and maybe they happen to see something from the *Times* on somebody's Facebook news feed." He went on, "The divide among people in my generation is not as much between traditional liberals and libertarians. It's a divide between people who are inward-facing and outward-facing."

The more successful and wealthy entrepreneurs become, the more they can afford to face outward. Reid Hoffman, of LinkedIn, who published a book last year called "The Start-Up of You," is regarded as one of the Valley's leading public voices, although, until recently, his political engagement had been limited to campaign contributions. Hoffman described Silicon Valley's intellectual culture as underdeveloped. Part of the problem, he said, is the competitiveness, which requires an unyielding focus on one's company, and "part of it is because of that libertarian strain—we're just all out building stuff, and everything else is kind of extraneous." Hoffman says that when he was a Stanford undergraduate, in the late eighties, his only concern was "how do I strengthen public intellectual culture in the U.S.: who are we as individuals and a society, and who should we be?" But he decided that the academic life would have too small a platform, and he became an Internet billionaire instead. When LinkedIn was in its early stages, a decade ago, Hoffman went a few years without reading a single book. Now in his mid-forties, he wants to make Silicon Valley a more reflective place, and increase its influence around the country and the world. He has started a monthly salon, flying in authors of new books on public affairs to talk with small groups of tech people, over dinner at a top-rated

French restaurant in Palo Alto.

"One of the things that we're getting is, like, 'I'm really glad I read that book, and I haven't read a book in a year,' " Hoffman said. His next guest is scheduled to be Steven Johnson, the author of "Future Perfect."

Mark Zuckerberg, in his op-ed announcing FWD.us, wrote, "In a knowledge economy, the most important resources are the talented people we educate and attract to our country. A knowledge economy can scale further, create better jobs, and provide a higher quality of living for everyone in our nation." Zuckerberg described himself as the great-grandson of immigrants, and the beneficiary of national policies that have created equal opportunity and upward mobility across generations.

"Everyone in FWD.us hopes it will go beyond immigration, over time," Reid Hoffman said. Other possible issues include education reform and spending on scientific research. "But, as with an entrepreneurial start-up, if we can't demonstrate that we can do something good about this problem, then what use are we to the other ones?"

Like industries that preceded it, Silicon Valley is not a philosophy, a revolution, or a cause. It's a group of powerful corporations and wealthy individuals with their own well-guarded interests. Sometimes those interests can be aligned with the public's, sometimes not. Though tech companies promote an open and connected world, they are extremely secretive, preventing outsiders from learning the most basic facts about their internal workings. Marc Andreessen predicted that conflicts over issues like privacy, intellectual property, and monopolies will bring a period of increased tension between the Valley and other sectors of society, along with new government intervention. Brian Goldsmith, who has known Green since college, and who now runs an online investment start-up called PubVest, said, "If this new generation of smart, wealthy, successful tech leaders want to make a difference in terms of policy, it's the right idea to leave their cool headquarters and gorgeous campuses and actually engage.

They have a lot to bring to the table, and they may also learn the limits of their power and influence. I think it's healthy that they've decided to branch out and actually get involved in the political process the way that other industries and corporations do."

FWD.us has got off to a rough start—rougher than Facebook did. Rather than bringing fresh ideas to the project of organizing Americans and their elected leaders behind immigration reform, the group has hired veteran Washington operatives from both parties, who, following their standard practice, are spending Silicon Valley money on harsh and cynical political ads. The campaign attempts to bolster politicians who support immigration reform even though they represent states where the idea is unpopular. One ad, intended to cover Senator Lindsey Graham's right flank, in South Carolina, attacks Obama's health-care law; another, on behalf of Mark Begich, the Alaska senator, endorses oil drilling and a natural-gas pipeline there.

This first high-profile foray into hardball national politics has upset a number of people in Silicon Valley. The venture capitalist Vinod Khosla tweeted, "Will FWD.us prostitute climate destruction and other values to get a few engineers hired & get immigration reform?" Some early members of the group—David Sacks, of Yammer; Elon Musk, of Tesla Motors—have withdrawn. Amid the uproar, Zuckerberg and Green have been silent.

The South Carolina ad began airing in late April. It was made by a FWD.us shell organization called Americans for a Conservative Direction. Crude graphics are combined with footage of Graham attacking Obama. " 'Change you can believe in,' after this health-care-bill debacle, has now become an empty slogan," he says. "And it's really been replaced by seedy Chicago politics, when you think about it." The ad doesn't embody the spirit of "innovation" or of "disruption." But if Silicon Valley's idea of itself as a force for irresistible progress is running up against the unlovely reality of current American politics, that isn't necessarily a bad thing. It might mean that the industry is growing up. ♦

*Correction: NationBuilder was founded in 2009 by Jim Gilliam; Joe Green joined in 2012 with the title of president and co-founder.