DEPARTMENT: THINK PIECE

From the Gold Rush to the Colonization of Mars: How Silicon Valley Imagines Away the Working Class

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n the summer of 2021, Amazon founder and world's richest man, Jeff Bezos, launched himself into suborbital space with his new personal space travel firm, Blue Origin. Along with his flight suit, the billionaire wore a cowboy hat and country western-style boots as he boarded.¹

Met with gleeful derision on Twitter, Bezos's flight outfit nonetheless embodied and solidified two longstanding historical referents for the technology industry: that of a past Wild West, and that of a future of space colonization.

From the 1960s to the present day, technology firms have expressed hopes of "striking gold." These corporations—both the Big 5 and smaller ventures—have created and promoted stories about who they are. For historians of computing, these narratives can help us understand how these companies see themselves, and, importantly, who they would like to be. While the computing industry's cowboy and space narratives used to circulate primarily in tech, aerospace, and military circles, sometime in the mid-1970s they came to take hold at the wider societal level. Since that time, these myths around technology have shaped the public conversations about the role of these companies and their products in our lives. They have also lent credence to the ways in which they do so.

These two long-standing temporal imaginaries—the Wild West on one end, and Outer Space on the other animate historical claims that cement high-tech

1058-6180 © 2022 IEEE Digital Object Identifier 10.1109/MAHC.2022.3172519 Date of current version 21 June 2022. companies as inheritors of a storied past, and make the sector appear inevitably dominant in the future. In doing so, these dual temporal narratives play a significant role in creating the *contemporary* ideology of the high-tech industry.

This Think Piece will trace the interrelated meaning of these twinned allegories of technologists striking gold, and of colonizing space. In doing so, it will show that these are not anodyne myths that innocuously bookend our contemporary histories of computing, but rather, that these narratives constitute a political project that militates against the production of workingclass histories of computing and computing's potential working-class future.

The Gold Rush Mythology of the Early Silicon Valley

It is clear in the archives, records, publications, and personal papers of early Silicon Valley founders and institutions that the contemporary technology industry has come to understand itself through the fictive landscape of the Wild West. Much of this mythology is based on the history of California itself. The San Francisco Bay Area was a site of Spanish Colonization from the 1700s to the 1840s, and then Anglo-American Settler Colonialism beginning in the 1840s. In 1848, gold was discovered on the northwestern spine of the Sierra Nevada range, making international news. By 1849, this had triggered an international gold rush, attracting miners from all over the world, including Australia, Belgium, Chile, China, France, Ireland, Japan, Mexico, and Scotland. By ship, rail, horse and mule, wagon, and foot, these miners in the making raced to discover their own gilded age. Many stopped briefly in San Francisco, or Santa Clara, or San José, to buy fresh livestock, provision themselves, and purchase maps, tents, picks, shovels, and gold pans. They found others to travel with, and tips on how to get to where they were going, and where the next big strike was expected. California state and federal authorities forced native people into bonded labor, often working

¹Thank you to Colette Perold for inviting this piece, to Daniel Stanley and the Future Narratives Lab in London for inviting the talk on which it is based, and to Michael Sacasas for the suggestion of Barrett Swanson's article. In addition, this article is also in the debt of Riederer.



FIGURE 1. Jeff Bezos in cowboy hat and boots, 2021.²

for prospectors.³ The towns that sprouted up around northern California during the Gold Rush bear the spirit of the moment in their names: places like Copperopolis, Rough and Ready, French Camp, Chinese Camp, and Mormon Bar. Silicon Valley's most famous sports team is named the 49ers, after the Californians who staked their claim during that year.

In the twentieth-century Silicon Valley, it became received wisdom that the people who got rich during the Gold Rush of 1848 and 1849 were not the men who found gold in the Sierra Nevada, but rather the shopkeepers and financiers who provisioned horses, packs, food, axes, and spades to those who hoped to pan for gold. Silicon Valley engineers have, since the 1950s, explained their business model as not just "hitting gold," but as making and selling the tools needed to do it.

This business advice, forged in California's settler colonialism, Native American genocide and removal, ecological destruction, and the cultural valuation of individual entrepreneurship and risk taking, is both informed and reproduced by contemporary Silicon Valley culture. Moreover, insisting that the high-tech boom is a repeat of a cycle of accumulation that happened in the nineteenth century normalizes the cycle of accumulation that tech saw around the turn of the twenty-first.

Beginning in the 1960s, Silicon Valley firms embraced and promoted this Wild West image. In the 1980s, they secured venture capital from banks in New York and London by advertising the Valley as "the second Gold Rush." The Silicon Valley was often referred to as a "boom town." When tech bubbles pop, they were explained as "busts." According to Stanford University professor Fred Turner, Silicon Valley journalists and marketers have long depicted engineers as explorers, conquering new, electronic frontiers.⁴

In the 1960s through the 1980s, Walker's Wagon Wheel Restaurant, a western-themed bar in Mountain View, was an after-work watering hole for Silicon Valley engineers. A large, covered wagon perched on the roof of the bar was visible from the road, and a scrawny wooden mule greeted patrons at the door. Local legend holds that Intel cofounders Robert Noyce and Gordon Moore decided to establish the Intel corporation over drinks at the Wagon Wheel, and that the bar is where Nolan Bushnell first betatested the early video game Pong. Workers of the era remember it as a place where one could ask the room about tricky code problems over a beer, or find a new job over a stiff whiskey. The bar's appeal was in its pioneer theme: a place where workers could imagine themselves as "breaking new trail," "trailblazing," and being computer "cowboys" on the "electronic frontier." The themed cocktail bar was considered to be so significant to the history of the Silicon Valley that when it was demolished in the early 2000s, the Computer History Museum in Mountain View saved one of its decorative covered wagon wheels.5

In the 1980s, the city of San Jose enacted a massive downtown redevelopment plan meant to revitalize the struggling urban core of Silicon Valley. As part of the city's effort to "sell" the history and place of San Jose to global corporate investors, they sold California's Gold Rush history. Mayor Tom McEnery erected a large statue in the downtown center in celebration of one of San Jose's first American mayors, Irish-born Thomas Fallon. During the Mexican-American war, Fallon had raised troops to capture the Pueblo of San Jose from the Spanish. He subsequently made his first fortune by selling pickaxes to 1849 gold rushers. The city of San Jose considered it an important expenditure of public funds to build a statue of Fallon, as this public monument would connect the history of the Reagan-Era Silicon Valley to California's "frontier" past in the early years of the Silicon Valley's tech boom. The Anglo-American colonization of the nineteenth-century California infused the contemporary spaces, language, discourses, and imaginaries of Silicon Valley.

²Photo, GQ Magazine. July 20, 2021, Accessed at https://www. gq.com/story/bezos-space-hat ³Benjamin, An American Genocide.

⁴Meehan and Turner, Seeing Silicon Valley.

⁵Hintz, "Historic Silicon Valley Bar and Restaurant Review."

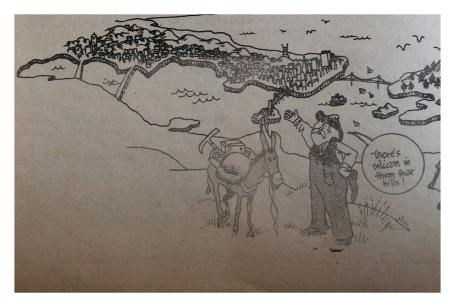


FIGURE 2. Late 1970s tech industry newspaper cartoon shows a bearded prospector, with his pickaxe, cowboy hat, and mule. With the Golden Gate Bridge and the city of San Francisco behind him, he gestures toward the mountains of the Peninsula and the Valley to declare, "There's silicon in them thar hills!"⁶ Author photo.

By the beginning of the 1990s, technologists like John Perry Barlow held that networked computing was in "a frontier condition," and in the first year of that decade, funders Steve Wozniak and John Gilmore, Board of Directors members Steward Brand and Mitch Kapor, and supporters Jaron Lanier, Chuck Blanchard, and Paul Saffo, agreed that the name of their new San Francisco-based computing and regulation think tank should be named the "Electronic Frontier Foundation."⁷

This allegorical thinking has remained pervasive up to the present day. In a recent article in Harper's, the young CEO of Clubhouse Media, Amir Ben-Yohanan, described the contemporary social media market with the same shimmering zeal:

"It almost reminds me of the old days in the U.S. when people got on their horses and buggies and went west for the Gold Rush. And everything was uncharted territory, and they got to California and Colorado and they marked their territories and said, "This is mine." And they started digging, and some of them made a lot of money and some of them didn't succeed, and it was totally unregulated... and what dawned on me was that the socialmedia market is a lot like the Wild West."8

This lack of regulation is important to the young CEO, and indeed central to his conception of the

⁸Swanson, "The Anxiety of Influencers."

success of the glittering, parallel endeavors of gold prospecting and social media influencing.

The computing industry's valuation of the Wild West has been so pervasive that it has even melded with its conceptions of the *future* of historical time. In 1982, when Space Services, Inc., launched the world's first privately funded, commercial space travel rocket, they named it the Conestoga, after the iconic wagons used by nineteenth-century Anglo-American colonists on the North American continent.⁹

The Futures of Space Colonization

Like the Gold Rush past, the Cold War space race against the Soviet Union was likewise foundational to forming Silicon Valley's historical identity. In the postwar period, American competitiveness in the international Space Race was not simply a symbolic display of technological progress, nor was it just a massive campaign to draw nonaligned countries into the American sphere of influence. Importantly, American military spending during the Cold War allowed for the financial success of Silicon Valley.^{10, 11} American military priorities in the computation and

⁶Author's photo. Courtesy, Stanford Archives and Special Collections, Silicon Valley Ephemera Collection, circa 1977. ⁷Turner, From Counterculture to Cyberculture.

⁹Abell, "Sep. 9, 1982."

 ¹⁰Maher, Apollo in the Age of Aquarius, p.70.
 ¹¹For more on the Cold War space race, see O'Mara, Cities of Knowledge; O'Mara, The Code; Leslie, The Cold War and American Science; Cohen et al, The Technology Pork Barrel; Maher, Apollo in the Age of Aquarius; Ward, The Consequential Frontier; Barbrook, Imaginary Futures.



FIGURE 3. In this political cartoon, a small, tired man labeled "Domestic Needs" imploringly asks a proud, smiling giant labeled "U.S. Space and Military Technology," "What have they been feeding you?" by Gene Basset, the *Washington Daily News*, July 1969.¹⁰

defense industries served as a set of key historical influences in the creation of Silicon Valley ideology.

Throughout the Valley's history, space exploration has provided a steady flow of Washington dollars to the region's technology and aerospace firms. In turn, the high-technology industry has long imagined a future in which the American public can innovate itself out of dangerous planetary threats—promising that space colonization, instead of global cooperation, will save us. Beginning in the 1950s, driven by the fear of imminent nuclear war making planet earth unlivable, big tech promised that space colonization could save a lucky few Americans from the bomb.

Today, the threat of climate change has increasingly become the imagined future that must be avoided. For instance, Jeff Bezos has made the Malthusian assertion that the coming demographic population increase and increasing resource scarcity will force humankind to move off the Earth and into space colonies. In his imagination, Earth will be maintained as a zone for industry and only the most essential of forms of resource extraction and toil, whereas *living*—for the select lucky and risk-taking few—will be on colonies in the celestial skies above. This type of salvation allows the tech sector to project itself as both a benevolent actor today, and the central force of authority in all of our future lives.

But why does the technology industry engage in narrative production at all? It does so because these myths have political and economic utility. In the imagined Gold Rush past and the Space Race future, the technology industry temporally displaces class conflict and the needs of workers in the present moment into a far-off, fictive era. This displacement then protects and insulates the industry from contemporary accusations like antitrust violations, labor abuses, tax avoidance, and billionaires' resource hoarding. From the Cold War to summer 2021, promising a bright future in a galactic colony has served to speculate the industry out of present problems.¹² Through the use and recitation of the Gold Rush and space travel tropes, high-tech storytellers historically situate themselves in the present by using the past and future as referents. These imagined pasts and projected futures create and justify a logic about the present, existing world that serves the industry, and reifies an ethos about labor and accumulation.

Both the imagined California of the Gold Rush moment and the space colony of our future serve as terra nullius. (Indeed, Richard Branson's space travel company is named "Virgin Galactic.") In the case of the Gold Rush imaginary, these narratives represent no indigenous people with their own economies. On a faraway planet, there are no fellow humans or delicate ecologies.¹³ These frontiers of accumulation are territories where the state is rarely visible, but when it is, its purpose is to enforce the property rights of speculators. Crucially, these landscapes lack any proletarian population. Instead, everyone is a small-scale speculator, a miner with an axe, or a new space arrival with a one-way ticket to space and a dream. These mini-entrepreneurs-whether they be bearded gold prospectors or climate refugees from Planet Earthassume personal risk for personal reward. They take on individual debt to pursue the utopia of striking gold. These logics ask us all to each strike out as an indebted speculator, to travel at great danger and great cost, to places far from home. In these imagined pasts and futures, the individual uses his own small-scale, private capital to colonize a place, and by the nature of this indebted risk, his gamble pays off. This jackpot then obviates the need for future

¹²Maher, Apollo in the Age of Aquarius.

¹³Contrary to this imagination, California's indigenous people were much a part of Gold Rush-era California. For more on this, see Johnson, *Roaring Camp*.

work in that place. Labor and luck intertwine, and exertion and collective well-being fall out of the equation. Conveniently, in these imagined economies, you can get rich without actually needing *workers*. These tales of speculation with big pay offs in past and future justify the projects of speculation as they happen *now*, in the present moment.

Within this logic, it is important and useful—indeed, an advantage—to disavow land, people, place, and mutual responsibility. The promise of extraction with minimal labor fetishizes the undertaking of personal physical and financial risk, promises a future where work is irrelevant to social organization, and extends the hyper-mobility of capital to literally cosmic scales.

The historical lessons of the past Gold Rush or the future space race are not that capitalism does not work, nor that it is failing the vast majority of humankind in the present time. Rather, the lesson is that humankind needs to be more spatially mobile; that it must tolerate environmental and human destruction; that individuals must seek new frontiers for extraction and speculation, and they must get there *first*. Speculation means getting people to follow you to new places, and to buy, through individual debt, the means of production and the infrastructure of a new industry. And by creating a new industry, each individual can ensure their own survival and supremacy over the others who come later.

What makes these imagined worlds important is that they produce a public economic history in which the working class was irrelevant to past prosperity, and in which the working class will be obviated in the future, when technology reaches its full expression on a galactic scale. These are myths in which every man is only in it for himself. It is a blue origin story indeed.

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