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Silicon Valley and the Social Media Industry

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Introduction

The global center for venture-backed technology startups, both in terms of sheer numbers of companies, employees, and money, as well as mythological importance, is Silicon Valley in Northern California. When writing critically about the industry of social media, two things are difficult to avoid. First, it is tempting to adopt a dismissive or mocking stance. The peculiar combination of naive idealism and free market worship that characterizes tech startups is ripe for ridicule, especially when examined outside its Northern Californian context. The scramble to build the best laundry startup (Pressler 2014), the recent \$120 million venture capital (VC) investment in a \$700 wi-fi enabled juicer (Ferdman and Ingraham 2016), or venture capitalist Tim Draper’s campaign to divide California into six states, of which Silicon Valley would be one (Wohlsen 2014) seem goofball at best, clueless or juvenile at worst, making it easy to write off modern tech culture as a clueless echo chamber. This misses the point. Despite its excesses, Silicon Valley functions as a global imaginary: it models what is considered a superior type of wealth-generating innovation for other places eager to replicate its success. Thus, we must take it seriously as attempts are made world-wide to replicate its practices.

Second, the conflation of “Silicon Valley” with “social media” is complicated. Most social media companies are venture-backed startups; some are public (Twitter, Facebook), some private (Pinterest, Snapchat), and some have been acquired by larger companies (Reddit, YouTube, Instagram, Tumblr). But most venture-backed technology startups do not produce social media. At the same time, many of today’s most successful startups do build on the original concepts of “social media” —user-generated content, peer production marketplaces, collaboratively generated information, datafication—to extend the logics and aesthetics of social

media into new realms. As Tarleton Gillespie writes elsewhere in this volume, the model of “platforms” that originated with social media now extends to labor (Uber, TaskRabbit, Postmates, Shyp), housing (AirBnB), finance (Venmo, Kiva), and direct-to-consumer goods (Casper, Everlane). The co-founder of mattress company Casper, for instance, told *Inc.* magazine that, “In the beginning, it was ‘Let’s disrupt the mattress industry. It’s broken.’ That quickly morphed into ‘Let’s invent an industry around sleep.’” He says “We consider ourselves a tech company first” (Welch 2016). Affirming Silicon Valley’s values of *disruption* and *innovation*, Casper positions themselves in conversation with other successful startups, rather than other mattress companies, who are implicitly written off as stodgy and out-of-touch with modern, technologically-savvy business practices. To understand the industry of social media, we must look at Silicon Valley’s venture-based startups, their culture, and how this culture has been and is being exported—for better or for worse—around the world.

While the idea of digital networks spurs fantasies of “virtual reality” and “the cloud,” the production of software is very much grounded in place. Global sites of technological production such as Silicon Valley, as well as Tel Aviv, New York, Sydney, Bangalore, London, and Berlin bring together bodies, technical infrastructure, and capital, creating particular sets of socioeconomic circumstances under which software is created. The conditions of social media production are dominated by startups funded by venture capital, the most successful of which become mature, established companies, generating immense wealth for their founders and early employees.¹ Note that I use the term “startup” in this essay to mean “venture-capital backed technology startup.” The term is sometimes used to denote a small business that is less than a year old (U.S. Small Business Administration Office of Advocacy 2016a), but startups and small businesses are distinct. The vast majority of entrepreneurs in the United States, and around the world, start small businesses like barber shops, eBay storefronts, plumbers, and grocery stores. Most of these small business owners have no employees, and they are primarily self-financed (U.S. Small Business Administration Office of Advocacy 2016b). A startup, particularly a venture-capital-backed technology startup, is predicated on the ability to *scale* and the potential for very high growth (Henrekson and Sanandaji 2014).

¹ While an alternative model exists in the form of the networked, non-profit collaborative culture of free/libre/open-source software, FLOSS projects rarely result in popular social media, with the notable exception of Wikipedia. See Gehl, this volume, for more.

This chapter will provide context for the modern era of technology startups by examining the history of Northern Californian software development, specifically its libertarian-counter-cultural bent known as the “Californian Ideology” which combines a distrust of institutional structures with a deep belief in the potential of technology for social change (Barbrook and Cameron 1996). This ideology has remained more-or-less constant through sixty years of boom-and-bust cycles, from transistors and micro-computers through to the dot-com boom and Web 2.0.

However, the cultures and values of contemporary technological practice, specifically how myths of meritocracy, openness, and entrepreneurialism function in the political economy of the tech industry, are crucial to understanding the discursive underpinnings of social media technologies, as are the way that space and place influence the conceptualization and building of startups. Silicon Valley, with a preponderance of young, wealthy men, creates many apps and services devoted to outsourcing homemaking and personal chores, while urban-exploration apps like Foursquare are designed for densely-populated, nightlife-heavy cities like New York. A global mythology of startups and entrepreneurship, spread through websites like Quora, Hacker News, Mashable, and TechCrunch, affects workers world-wide. Young men hold up Mark Zuckerberg and the late Steve Jobs as role models, mimic “best practices” outlined on blogs and discussed on Twitter, and attend networking events modeled after those popular in major global cities. Several institutions in which such myths and cultural practices are replicated, namely hackathons, accelerators, and Startup Weekends, are re-enacted around the globe in an attempt to bring Silicon Valley values to local startup communities. In what follows, I outline the major mythologies of this discourse—entrepreneurialism, meritocracy, and openness—and how they contribute to specific conditions of technological production such as funding rates and hiring practices. For example, “pattern recognition” (venture capitalists assessing potential startups based on whether their founders resemble successful entrepreneurs in terms of gender, race, nationality, and education) and “cultural fit” (one’s ability to blend in with work cultures dominated by young white and Asian men) contribute to gender and race inequality in American startups, which in turn affects which technologies are developed and how target markets and user bases are conceptualized.

The Californian Ideology and the History of Silicon Valley

Social media is more popular than ever. Two-thirds of Americans use social media sites, up from only 7% ten years ago (Perrin 2015). According to the Global Web Index, there are approximately 2.3 billion user accounts on social media services, representing 31% of the world's population (Chaffey 2016). And much of this social media, with the significant exception of that popular in China,² is headquartered in Northern California. According to *Forbes*, 65 out of 174 of the “unicorns” of the tech industry—privately-owned startups worth more than \$1 billion US—are based in California. They include social media sites Snapchat, Pinterest, Nextdoor, and Slack, and social media-adjacent companies like AirBnB, Uber, and BuzzFeed (Nusca 2016). (Of the rest, 42 are in China, 41 elsewhere in the United States, 19 in Europe, and 8 in India; the rest are spread around the world (CrunchBase 2016)). San Francisco and Silicon Valley represent more than 70% of US venture capital investment, most of it in software (Massaro 2016). While San Francisco faces skyrocketing rents and a very visible homeless population, engineers at startups like Twitter, Facebook, Uber, and Slack are paid six-figure salaries, fed free healthy meals three times a day, and shuttled to-and-from work in private buses via Bay Area highways. As a result, the greater Silicon Valley area has lower unemployment, lower poverty rates, and higher wages than the rest of the United States (Massaro 2016).

Santa Clara County, also known as Silicon Valley, encompasses the cities of Palo Alto, Mountain View, Cupertino, Sunnyvale, and San Jose. It is one of the United States' economic centers, with a long history of generating wealth from technological innovation, from transistors and micro-computers to video games, multimedia, and dot-com companies (Saxenian 1996; English-Lueck 2002). Silicon Valley proper boasts a diverse population with skilled immigrants, expensive real estate, well-funded public schools, and technological saturation (English-Lueck 2002, 11). Its political sensibility is of a decidedly libertarian bent, emphasizing self-directed improvement, a belief in meritocracy and social mobility, and a lack of “work-life balance” (Rogers and Larsen 1984; Bronson 2000; Borsook 2001; English-Lueck 2002). The mix of ethnic diversity and higher-than-average technology use has created an image of Silicon Valley as ultra-modern and representative of the future. English-Lueck writes, “The things that make

² China has a very active social media population and an extremely robust startup sector. Generally US tech companies have a difficult time making inroads. The Chinese social media industry is worthy of more attention than I can devote to it in this chapter. For more on Chinese social media, see (Fuchs 2016; McDonald 2016; Wang 2016)

Silicon Valley distinctive—its technological saturation and complex range of identities—are not merely interesting cultural artifacts in themselves. They are significant because both the pervasiveness of technology and identity diversity are coming to define the emerging global culture” (2002, 8). Today, Silicon Valley is not only synonymous with the technology companies located there, such as Apple, Facebook, Google, and Yahoo, but has grown to include nearby San Francisco, which has historically been hipper, younger, and wilder than its more conservative southern suburbs (Marwick 2013).

In *From Counterculture to Cyberculture*, cultural historian Fred Turner traced dense ties between 1960s counter-culture movements like the New Communalists and the computer pioneers of Northern California (Turner 2005; Turner 2006; see also Markoff 2005). This parallel history of both venture-backed capitalism and radical anti-establishmentarianism precipitated a discourse popularly known as “The Californian Ideology” (Barbrook and Cameron 1996). The Californian Ideology holds that an increase in computer technologies brings positive social consequences, that entrepreneurial technology culture rewards the smartest and the hardest workers, and that universal prosperity is best pursued through an unfettered free market. In previous work, I argued that the ethos of social media similarly combines countercultural ideology and neoliberal capitalism, positioning participatory technology as the solution to failing institutions (Marwick 2013). Drawing from such disparate sources as the hacker ethic, Do-It-Yourself punk rock, zines, and 2000s anti-capitalist activism, the discourse of “Web 2.0” identified Big Media as failing and faulty, and positioned social technologies as a more egalitarian alternative. When combined with Silicon Valley’s strong foundation in libertarianism, free market capitalism, and venture-backed startups, social media begat a somewhat unholy alliance that emphasized the entrepreneur, the celebrity, or the brand as a model of subjectivity to combat economic woes—in other words, the incursion of economic principles into the most personal regions of selfhood and interpersonal relationships.

In its function as a global imaginary, Silicon Valley exports the Californian Ideology as a universal solution to localized problems. This project is articulated in various ways, some more overt than others. For instance, elsewhere in this volume, Siva Vaidhyanathan discusses Facebook’s “Free Basics” program, which provided mobile users in India with access to a limited number of Facebook-selected websites. Facebook ignored the local context and the Indian software and telecommunications industry in favor of a simplistic model of social change

which presumed that access to information would intrinsically empower poor Indian people. Unsurprisingly, such an effort was criticized by Indian activists and media as tone-deaf and reminiscent of colonialism. However, in many places, social media technologies built in the United States have become deeply tied into local histories and cultures; As Miller et al. argue in their comparative analysis of social media use in eleven different countries, south Indian families, Chinese migrant workers, southeastern Turkish teenagers, and adults in rural Chile use social media quite differently based on local norms, geographies, and histories (Miller et al. 2016). Social media is articulated and experienced locally, but, as we shall see, the fantasy of technological solutionism is often taken up by countries and regions as a way to fiat economic success (Engel 2014; Bresnahan, Gambardella, and Saxenian 2001).

Beyond overt emulation of Silicon Valley by industries and governments, the media visibility and idealization of successful Northern California tech companies like Snapchat and Instagram have birthed a world-wide fan base that follows the business developments and social machinations of the scene through Hacker News, blogs, and Twitter feeds. San Francisco functions as a mythic center for entrepreneurs, academics, and venture capitalists across the world who imagine themselves to be connected through technology, and thus beyond place, but still ground themselves in the Californian Ideology of the Bay Area. Social media workers from San Francisco, New York, Tokyo, Paris, Austin, and London stay in close touch via instant messenger, Slack, and social media, touching base at conferences and industry events, often forging strong personal and professional relationships between people who only meet in person once a year. SV therefore functions as a shared set of assumptions, beliefs, and norms that maintains common interests across geographical boundaries (Marwick 2013).

Myths of Silicon Valley

The tech industry is governed by a series of myths that function to justify the political economy of the technology industry: openness, meritocracy, and entrepreneurialism. As I outline below, they are rooted in a particularly American, and even more specifically Northern Californian, set of presumptions; they do not always function seamlessly when ported to another context.

Openness

“Openness” is an umbrella term for projects that emphasize collaboration, participation, and transparent governance, as in open-access journals or open-source software. Lilly Nguyen describes openness as “a habituated moral view with particular aesthetics and sensibilities... technologies are seen as open in their ability to generate the creation and production of new technical products, to enable the continuous circulation of these products, and to foster use and consumption independent of technical expertise” (2016, 640). In other words, openness is framed as desirable because it allows anyone to participate, fostering democratic involvement and boosting the tech industry’s belief in itself as meritocratic. As Nathaniel Tkacz argues in his study of Wikipedia, while openness purports to be apolitical, this in itself is a political move, in that it sidesteps questions of inequality or power asymmetry (2014). Indeed, most “open” projects are, in reality, not particularly open, as participation inevitably leads to hierarchy. Wikipedia, for instance, has a heavily striated structure of involvement, and those who are the most successful at navigating it are those able to convincingly manipulate its intricate body of rules (Tkacz 2014). It is also overwhelmingly male-dominated.

The value of openness is also linked to a pleasurable, creative technical practice, which is acutely contextual to American internet culture. In her ethnographic work on technical practice in Vietnam, Lilly Nguyen discusses jailbreaking iPhones, which, in the global North, is typically characterized as “a moral commitment to generativity, openness, and transgressive self-expression” (2016, 640). However, during the time of Nguyen’s fieldwork there was no service provider in Vietnam who could legally provide iPhone service. Thus, purchasing an iPhone from abroad and jailbreaking it for personal use represented a connection to a global techno-culture, as well as a status symbol of modernity and luxury. While Northern hackers might see jailbreaking as a way to protest the “tethered” system of Apple products (Zittrain 2008), Vietnamese people saw it as a way to connect to the same system.

What this all presupposes, however, is that openness is still valued, which may be true in Western hacker or activist communities, but no longer seems true in the technology industry per se. “Openness” is an ideal not necessarily of the tech industry as it exists today, but one left over from its previous iteration as “Web 2.0” (Marwick 2015). Most social media sites and apps (Facebook, Twitter, Instagram, Snapchat) are “walled gardens” which deliberately make it difficult to port data from one platform to another—try exporting your Instagram photos to Snapchat, for instance—and use a number of techniques to keep users from clicking away from

their site or switching to another application.³ Proprietary technologies, from Apple laptops to wearables, are designed to facilitate “lock in” to a particular system and make it difficult for people to move from one to another, so as not to lose audience and therefore ad sales. Platform content is often curated and organized by algorithms and, sometimes, human editors; determining the logic behind this creation is similarly black-boxed and difficult (Eslami et al. 2016). Openness is a vestigial remnant of Web 2.0, but is increasingly irrelevant in the eyeball-driven world of modern social media “content.” Thus, it demonstrates how the political economy of the advertisement-driven web is extinguishing any ideals of libertarian tech culture that are incompatible. Despite this, several of the practices like hackathons and Startup Weekends discussed later in this chapter are open: since their basic structure is widely available online, anyone with the available resources can host one, and in theory anyone can attend. Within these contexts, freely sharing ideas and resources is not only normative, but explicitly taught to participants. Thus, openness is pedagogically reproduced, even if its value largely remains ideological.

Meritocracy

The term “meritocracy” was coined by sociologist Michael Young in a 1958 satirical essay. Young described a dystopian Britain in which social class—status ascribed by birth—had withered away, to be replaced by social status achieved through education. Young was concerned that educational reforms would make it impossible for the working class to achieve high-up political positions, and instead stratify elitism so that the wealthy and powerful were also seen as the most “deserving.” He was dismayed to see the word taken up enthusiastically—and non-ironically—by Tony Blair and his neoliberal New Labour party, bringing about the very dystopia he was attempting to guard against (Young 2001). Meritocracy in its modern usage refers to the idea that people will be judged not on their gender, race, or background, but solely on their intelligence and talents. In other words, you get out of the system what you put into it. Meritocracy is the underlying ideology of the American dream, which holds that each person can advance professionally and economically according to his or her merit. The ideal that the United

³ This shift has been vigorously resisted in Europe, culminating in the passage of a “right to data portability” as part of the European Union’s General Data Protection Regulation (GDPR) passed in April 2016; it remains to be seen how social media platforms will respond to this imperative (Burton et al. 2016).

States is a meritocracy is linked to its origin as a nation of immigrants, and stands in opposition to European birthright based on hereditary aristocracies (McNamee and Miller 2009).

Despite considerable research showing that economic assets in the US are not distributed according to merit, the term persists, particularly in Silicon Valley and the tech industry in general (Bacon 2013; Shih 2006; English-Lueck 2011). Meritocracy functions to justify the immense inequity of wealth distribution in the technology industry, as its logical conclusion is that those who are worth millions, or even billions, of dollars are the smartest or the hardest-working (Marwick 2013). It also provides a reason for the lack of African-American and Latino men, and women of all races (particularly women of color) in the industry: this discourse holds that they are simply not interested, or not skilled enough, to compete with white and Asian men.

In reality, Silicon Valley does not at all function as a meritocracy. Women are treated differently from men: they are subject to more harassment at work; they are left out of male-dominated mentoring networks; they are promoted less; their roles as mothers or care providers are seen as incompatible with the fast-paced world of technology; and their failures are seen as representative of their gender rather than individual (Hui 2014; Cech and Blair-Loy 2010). Moreover, practices like hiring based on “culture fit” exclude people who don’t enjoy or who have aged-out of the college dorm atmosphere of startups. Venture capitalists employ what they call “pattern recognition” to determine who to fund, prioritizing entrepreneurs who look like people they’ve previously funded, excluding founders and products that don’t fit into a particular (raced and gendered) archetype. In Johanna Shih’s qualitative study of Silicon Valley workers, white women and Asian men and women experienced widespread gender and ethnic discrimination. They used job-hopping to circumvent bias: white women moved to companies recognized as good for women or to bigger companies with better work-life balance; Asian men and women joined minority-owned firms or started their own companies (Shih 2006). In my own research in San Francisco, I found that women’s accomplishments were systemically undervalued, whereas their appearance and relationships with men were emphasized (Marwick 2013). Indeed, bias in the tech industry, whether based on race, gender, or geography, is significant, endemic, and structural.

As an explanation for social inequality, meritocracy justifies and reproduces inequality, and makes invisible its structural nature, precluding policy-making or other challenges to systemic inequity (Cech and Blair-Loy 2010, 372). In other words, Silicon Valley’s insistence

that it is a home for the “best and the brightest” and that those who don’t succeed there simply aren’t good enough masks very real barriers to entry and success.

Entrepreneurialism

The valorization of entrepreneurship may be the most cherished of Silicon Valley myths. The entrepreneur is a breed apart from normal men and women; he is fueled by passion and independence, with a deep desire to “change the world.” Like Steve Jobs and Mark Zuckerberg, he is also usually a white guy in jeans and sneakers. The entrepreneur is also a key figure in the neoliberal paradigm. Sarah Banet-Weiser and Marita Sturken, in their study of street artist Shepard Fairey, write “the entrepreneur... is understood as an ambitious individual, dependent on no one but him/herself, a person who ‘owns’ his or her own labor and is thus accountable for not only profit but risks accumulated by this labor” (2010, 273). The entrepreneur is presented as a subject position which anyone can and should step into.

Daniel Cockayne argues that this romanticized concept of entrepreneurship is simply an emotional attachment that justifies economic uncertainty. In other words, in order to rationalize the long hours, hard work, and negligible rewards of starting a company, one must have an emotional attachment to entrepreneurialism. Talking about being “driven” or having a “passion” for one’s work excuses the obvious downsides (Cockayne 2015). He writes:

Affect functions through entrepreneurial forms of digital media work to produce and reproduce attachments to normative (and often precarious) working conditions. These affective attachments reinforce a privileged idea about what work ‘should be’, and how work ought to be practiced despite potentially deleterious effects on individuals’ earning capacity, physical and mental health, and ‘life’ as a category broadly conceived (2015, 3).

In my earlier work, I found that even if employees at early stage startups were working under difficult, stressful, or uncertain working conditions, with only a vague possibility of success, they espoused platitudes of loving their job and changing the world. Being an entrepreneur was much higher-status than existing as a rank-and-file worker at Twitter or Facebook, even if the latter was much better paid. For the self-styled entrepreneur, working for others was anxiety-producing and unsatisfying.

This sense of entrepreneurial value extends beyond founding a company. Having personal projects demonstrates initiative and creativity. Participating in the larger community of technology enthusiasts, whether founding an event or developing an open-source tool, is highly respected in Silicon Valley, demonstrating “community citizenship, generalized reciprocity, moral obligation, and pro-social behavior” (Tedjamulia et al. 2005), traits that are valued in many technology communities that prize information-sharing and collaboration. Similarly, contributing to free or open-source software projects demonstrates that the creator is technologically savvy, creative, and not motivated by money. But obviously not everyone can be an entrepreneur; all industries are comprised of levels of laborers, and those who do not run a company, or even know how to code, often live precariously without economic or social stability—such as the Uber driver. The emphasis on the entrepreneur obscures inequalities and exploitation within the neoliberal system of labor.

Silicon Valley as Global Imaginary

Silicon Valley is a “technopole,” or a model for technologically-aspiring regions (Castells and Hall 1994). However, it is not enough to simply emulate software development or technology manufacturing; what must be emulated is the process of *entrepreneurship*. Jerome Engel writes that while SV functions as an exemplar for innovation-based economic development worldwide, often supported by local governments and businesses, this is not always successful:

It is widely touted that the right combination of factors and policies can unleash the inherent entrepreneurial capacity of society, energize individual initiative, and create individual and collective benefit. However, the success of efforts to create innovation clusters has been uneven at best, and the regional economic scene is littered with Silicon Valley imitators (Engel 2014, 36).

These imitators, or *siliconia*, include Silicon Alley in New York, Silicon Gulf in the Philippines, Silicon Wadi in Israel, Silicon Saxony, Cwm Silicon in Wales, Silicon Beach, Silicon Corridor, and Silicon Prairie (Dawson 2001; Wikipedia Contributors 2009). Engel writes that to be successful, a “Cluster of Innovation” must include universities, government support, VCs, entrepreneurs, investors, and a host of specialized service providers and professional resources, not to mention an emphasis on mobility and networking (2014, 38). Indeed, Silicon Valley has a

rich infrastructure of people, capital, and material developed over a seventy-year history, and is thus extremely difficult to replicate (Lécuyer 2006).

In their literature review of digital entrepreneurship in Latin America, Quinones et al. explain that while policymakers and private investors throughout Latin America have supported a number of initiatives designed to increase the number of technology startups, such as Mexico Digital, Startup Chile, and Brazil Startup, these have mostly been unsuccessful (Quinones, Nicholson, and Heeks 2015). While they argue that the lack of research on the Latin American context makes it difficult to tell exactly what has prevented this success, it seems clear that much of it is contextual. The entrepreneurial infrastructure of Silicon Valley is characterized by “incubators, spin-offs, informal networks, formal networks, physical infrastructure, and culture” (2015, 192). However, as Daniel Isenberg observes in a popular *Harvard Business Review* article, outside the United States, successful entrepreneurial ecosystems have a different set of characteristics (2010). Indeed, attempting to emulate Silicon Valley is impossible; not only is it a magnet for entrepreneurs who move there from all over the world, it has an “overabundance of technology and technical expertise” that requires “generations” to create. He writes:

Even Silicon Valley could not become itself today if it tried. Its ecosystem evolved under a unique set of circumstances: a strong local aerospace industry, the open California culture, Stanford University’s supportive relationships with industry, a mother lode of invention from Fairchild Semiconductor, a liberal immigration policy toward doctoral students, and pure luck, among other things. All those factors set off a chaotic evolution that defies definitive determination of cause and effect (Isenberg 2010, 3).

Instead of imitating Silicon Valley, Isenberg argues that entrepreneurial ecosystems should be shaped around local conditions. He says that Israel’s successful startup culture, for instance, “evolved haphazardly out of a combination of factors, including spillover from large military R&D efforts, strong diaspora connections to capital and customers, and a culture that prized frugality, education, and unconventional wisdom” (Isenberg 2010, 4).⁴

⁴ The Israeli government proactively supported a venture-capital backed startup market. For more on Israel’s tech sector, see Avnimelech and Teubal 2006.

Despite this, the desire to emulate Silicon Valley, its wealth, and its young, rock star entrepreneurs, remains strong. There is a folk belief in what Lilly Irani calls *entrepreneurial citizenship*: a model of selfhood “celebrated in transnational cultures that orient toward Silicon Valley for models of social change” (2015, 3). She writes that “work practices associated with software production have come to signify collaboration, voluntarism, optimism, and wealth, tested in software practice and ready to enter new domains of public life” (2015, 2). In other words, certain symbolic rituals and ideologies of modern software development are linked not only to financial success, but to an optimistic model of progressive production. In the next section, I look at how certain practices of the technology scene—Startup Weekends, hackathons, accelerators and incubators—are replicated world-wide in an attempt to spread the “soft skills” that make up Silicon Valley.

Emulating Silicon Valley

In his study of Brazilian software developers, Yuri Takhteyev argues that to understand how globalization functions, we must examine “worlds of practice” – “systems of activities comprised of people, ideas, and material objects, linked simultaneously by shared meanings and joint projects” (2012, 2). Software development as a whole is certainly one of these worlds of practice, consisting of a shared set of values, technical knowledge, code, documentation, and the daily practice of creating software. Obviously, robust software industries exist world-wide. In countries like China, Taiwan and Israel, with mature software industries, the “brain circulation” (Saxenian 2006) of engineers who move to Silicon Valley to work, gain expertise in work practice, and then return to their home companies complete with contemporary development practices, has been deeply influential. Beyond just software development, however, much of the “soft infrastructure” (Haines 2014a, 282) of Silicon Valley exists as a separate world of practice. More recent practices identified with venture-backed startups that blur the lines between work, play, and self, are deployed world-wide in a strategic attempt by institutions to attempt to create “a culture of collaboration and innovation” (Cervantes and Nardi 2012, 5). These practices are quite different from those of software development proper.

For instance, the SV nonprofit “Startup Weekend,” owned and operated by the accelerator TechStars, conducts workshops around the globe teaching local would-be entrepreneurs about the culture of Silicon Valley startups. Startup Weekend brings engineers,

entrepreneurs, venture capitalists, and educational institutions together in an attempt to create what SV refers to as an “ecosystem” – a “network of people, institutions, and resources needed to build startups” (2012, 7). In their ethnography of a Mexican Startup Weekend, Cervantes and Nardi argue that Mexico’s software industry is characterized by service and manufacturing, and Startup Weekend is an attempt to create the type of “startup companies that build innovative software products with global impact” (2012, 1). At Startup Weekend, Mexican entrepreneurs decry what they see as a risk-averse, distrustful, and non-collaborative local culture, and attempt to embrace the resourceful and collaborative spirit of Silicon Valley. It seems, however, that the spirit of SV leaks through in more ways than one; one team gets angry when their idea for a “social network for cats” is pitched by another team. The Startup Weekend mentors calm them down, explaining that there are many social networks for pets, and that execution matters more than just ideas. One might question whether a social network for pets is the type of innovative product with global impact that will help transform Mexican industry; SV values and practices do not, in themselves, produce progressive solutions.

Another type of “soft infrastructure” is the accelerator, a “bootcamp for startups” where cohorts of small startups are mentored by successful entrepreneurs.⁵ Small startups apply to join an accelerator, which accepts classes or cohorts of startups which go through a program for a fixed amount of time, and are provided with seed funding from the accelerator in exchange for equity, as part of a global network of venture capital funding. The goal of accelerators is for their alumni to get VC funding and eventually “exit,” either through acquisition by a larger, wealthier company or with an Initial Public Offering (IPO). Because the accelerator takes a percentage of such exits, their success is judged by the monetary value of their alumni companies’ exits. Some highly successful startups, including AirBnB, Reddit, Uber, and Taskrabbit, are accelerator alumni. Outside the US, there are an estimated 200 accelerators in 33 countries worldwide; Haines observed accelerators in Singapore and Buenos Aires. She argues that these accelerators function as institutions that reproduce the social order of startups, providing young companies

⁵ Both accelerators and incubators attempt to create or grow small startups. Accelerators are highly-selective programs with a fixed time-frame which require startups to apply; during the accelerator, the startup works with various mentors to improve their product and business, and is given a small amount of seed money in exchange for equity. Incubators, on the other hand, are co-working spaces in which people similarly focused on particular ideas or verticals are brought together in an attempt to nurture innovation. They rarely provide companies with money, and often work with startups much earlier in the process in an attempt to find a workable business model or product. (Forrest 2016).

with funding, networking opportunities, and, perhaps most importantly, an acculturation into startup norms and communities of practice which, of course, are based on those of Silicon Valley (Haines 2014b). In the accelerators she observed, she found that there were often cultural differences between the startup best practices taught by the accelerator and the norms of the local community. For instance, a Vietnamese startup quit their accelerator because they were uncomfortable with cold-calling potential investors (2014b, 292).

In her research on hackathons—intense, focused coding sessions held over multiple days, in which small teams of programmers create software prototypes—Lilly Irani argues that such events are significant not because they produce software (although they sometimes do), but because they produce *subjects*:

They manufacture urgency and an optimism that bursts of doing and making can change the world. Participants in hackathons imagine themselves as agents of social progress through software, and these middle-class efforts to remake culture draw legitimacy from the global prestige of technology industry work practices (2015, 2).

To the middle-class Indian coders that Irani studied, hackathons primarily promoted entrepreneurialism. Just as the Mexican Startup Weekend reified Silicon Valley as an ideal model for economic development in Mexico, the “open governance” hackathon extolled a model of social change based in Northern California as a way for India to develop nationally and progress globally. For participants, the hackathon, and its emphasis on “design and social entrepreneurship” (p. 8), was a way to differentiate public sector development, which they characterized as slow and deliberative, from forward-thinking, market-driven solutions. The hackathon “prescribed entrepreneurialism as a cure for ailments of global capitalism” (p. 9). Given that at the time, however, only about ten percent of Indians had internet access, a web-based solution to problems of governance would require the participation of NGOs and pre-existing activist networks. Despite their ideals, Irani’s participants were unable to finish a demo in time, and the project went nowhere.

In other places, entrepreneurs were able to translate SV work practices into their local contexts with more success. Ali Mohajerani et al. studied both innovative and traditional IT companies in Iran to examine the influence of Western social media on entrepreneurs (Mohajerani, Baptista, and Nandhakumar 2015). They found that the innovative firms, which

“used social media extensively to connect with others and learn new ways of doing business,” (p. 23) used the internet to learn about the products, work practices, and values of companies like Google, Twitter, and Facebook. Rather, however, than adopting these practices intact, IT entrepreneurs “localized practices and models, adding some features specific to their own contexts” (p. 24). These innovations included American products like Dropbox and Google Apps, but also work practices like “working from home” and prioritizing “openness” as a company value. This was in sharp contrast to more traditional Iranian companies, which adhered to traditional values of family and religion, avoided the use of social media (much of which is prohibited by the Iranian government), and required employees to work in the office (p. 24). The freely available resources online, from message boards to MOOCs, and the use of low-overhead, free or cheap collaboration technologies, helped the innovative companies grow faster and be more economically successful than their more traditional counterparts. In turn, this success spawned local Iranian communities, websites, and partnerships, especially in centers like Tehran. Thus, Iranian technology startups, in many ways, modeled themselves after successful Silicon Valley companies, “portraying themselves as modern and innovative enterprises, emulating the best-practice management of global corporates” (p. 25). However, these practices were translated and contextualized to the local context. It was the creativity and drive of Iranian entrepreneurs, not just the affordances of American social media, which led to these transformations.

Conclusion

While programmers and entrepreneurs world-wide still attempt to emulate Silicon Valley, the bloom is off the rose. Silicon Valley in the early twenty-first century exists both as something to mimic and something to parody. In New York, the “Stupid Shit No One Needs and Terrible Ideas Hackathon” mocked the propensity of the tech industry to tackle systemic problems like climate change through weekends spent building wearables and coding mobile apps. Categories like “artisanal ad networks,” “3D printed drugs” and “Using Slack to Raise Your Children” spawned projects such as “Unfriend the Poores,” a plug-in that determines the wealth of your Facebook friends and then allows you to delete those who do not meet your socioeconomic standards (inspired by a very real patent filed by Facebook that would use the social graph to determine Facebook user’s credit risk); YOUrinate, a wearable that tells its user when they have to pee; and, infamously, Soylent Dick, a phallus made out of the meal replacement powder that

shoots out Soylent when a phrase from the Soylent creator is typed in (Lavigne and Winger-Bearskin 2016). Co-founder Sam Levigne told *Vice* magazine, “Is a need being filled [by Silicon Valley] or is the need manufactured and then constantly reinforced?” (D’Anastasio 2016). In entertainment media, the HBO show *Silicon Valley* takes broad shots at the nerdy, male-dominated culture where founders brag about being part of the “three comma club”—worth a billion dollars—and hold meetings on bikes. Movies like *The Social Network* and *Steve Jobs* depict tech entrepreneurs as ruthless and socially challenged. The novel *The Circle*, by Dave Eggers, depicts a dystopian world controlled by an unholy alliance of Facebook, Google, and Twitter. Despite the tech industry’s massive financial success and uptake among regular Americans, its excesses and eccentricities are more visible than before.

Indeed, San Francisco has become the center of the country’s debate about economic inequality, as the salary paid to technology workers, a lack of new affordable housing, and a constant increase in population displaced working people, activists, and artists from their neighborhoods and homes (Bort 2015). The tech industry functions as a lightning rod for discontent over rising rents and gentrification, with protesters confronting private shuttle buses provided by Google, Facebook and Apple (LA Times Editorial Board 2014). Wealthy tech workers fueled the fire by visibly confronting the city’s homeless population. “I know people are frustrated about gentrification happening in the city, but the reality is, we live in a free market society,” wrote Justin Keller, founder of a startup that makes it easier to manage data servers. “The wealthy working people have earned their right to live in the city...I shouldn’t have to see the pain, struggle, and despair of homeless people to and from my way to work every day.” (Keller 2016). Greg Gopman, founder of a company which organizes hackathons, posted on Facebook that “In downtown SF the degenerates gather like hyenas, spit, urinate, taunt you, sell drugs, get rowdy, they act like they own the center of the city. Like it’s their place of leisure... In actuality it’s the business district for one of the wealthiest cities in the USA. It [sic] a disgrace” (Biddle 2013). Publicly shamed for his post, a year later he proposed solving homelessness by building geodesic domes housing “community transition centers” for shelter and “personal development classes from computer programming to life coaching” (A Better San Francisco 2015). To date, not a single transition center has been built.

Indeed, it’s been a rough few years for the American tech industry. Not only have tech startups been subject to relentless criticism as the poster children for income inequality,

misogyny, and bro-y cluelessness, but venture funding has dropped precipitously and with it, the go-go conspicuousness of the Web 2.0 era (Samuel and Sanwal 2016; Zaleski 2016). “It’s no longer cool to throw a fifty-thousand-dollar party to celebrate your launch,” a recent SF transplant told me, complaining that the city’s nightlife was sorely lacking compared to New York. Social media itself is cluttered with advertising and peppered throughout with tracking software, as apps and websites mine personal data and sell it to brokers (Angwin 2014); even the least savvy users are beginning to notice that visiting a website for slippers will cause said slippers to appear, as if by magic, on every site that you subsequently browse. On Facebook, Instagram, and, perhaps soon, Twitter, the News Feed displays only a sub-set of your Friends’ posts, generated algorithmically based on what the company believes will make you the least likely to leave the site. Once lauded for its facilitation of increased cultural participation and democracy, social media now looks like nothing as much as the endless cycle of consumer want depicted in M.T. Anderson’s 2002 dystopic YA novel *Feed*:

But the braggest thing about the feed, the thing that makes it really big, is that it knows everything you want and hope for, sometimes before you even know what those things are. It can tell you how to get them, and help you make buying decisions that are hard. Everything we think and feel is taken in by the corporations... and they can get to know what it is we need, so all you have to do is want something and there’s a chance it will be yours. (Anderson 2002, 40)

We must, then, consider the impact of Silicon Valley on the development of technology: where Silicon Valley is understood not just as a physical place but as a set of practices, ideologies, and beliefs. If these ideologies are uneasily compatible with social equality, yet are plugged as solutions to economic difficulties, what happens to them in other contexts? As we have seen, they often fail. But we may consider whether we want them to succeed at all.

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