International Journal of Communication 12(2018), 131–151 1932–8036/20180005

United States Digital Service: How "Obama's Startup" Harnesses Disruption and Productive Failure to Reboot Government

STEPHANIE RICKER SCHULTE[1]
University of Arkansas, USA

This article tracks the culture of start-ups as it entered government through the U.S. Digital Service (USDS), a new agency and self-described White House "start-up" designed to rewrite the government's digital presence. This critical discourse analysis traces the cultural history of the start-up, showing how and why it became an American ideal and icon of American power. This explains how and why the start-up became a cultural infrastructure for the federal government and how it became a commonsense solution to both technological and civic problems and a model for "venture government." This article concludes that ventures like USDS allowed the government to harness industry popularity, expertise, and credibility to tap venture capitalist modes of production and to capitalize on cultural associations with disruption and failure in the hopes of fortifying public trust in government. However, it also provided technology industry unprecedented influence in federal institutions for both better and worse.

Keywords: United States Digital Service (USDS), technology industry, start-up, cultural infrastructure, productive failure, venture government, cultural history

In 2013, the Obama administration launched HealthCare.gov, the website implementing the Patient Protection and Affordable Care Act (also known as Obamacare). It went over like a lead balloon. The website, designed to help millions of uninsured Americans, crashed. The few who managed to use the website received inaccurate information. Over the first week, less than half of 1% of visitors managed to enroll for health insurance (Radnofsky, 2014). *Newsweek* aptly declared it "America's first full-blown national crisis over a website" (Maney, 2013, p. 1).

In the wake of the disaster, panic ensued. President Obama and his chief technology officer (CTO) Todd Park assembled a "tech surge," an influx of technologists from industry giants who flew to DC for website triage. Mikey Dickerson, a Google engineer, coordinated a team of 60 engineers to fix the HealthCare.gov website (Gertner, 2015), applying "lean startup principles" (Chopra, 2015, p. 238). The

Stephanie Ricker Schulte: stephanieschulte@gmail.com
Date submitted: 2017–04–21

[1] Thanks to Fred Turner, Devon Powers, Laura Kenna, Julie Elman, and anonymous reviewers for their helpful comments.

surge worked so well that Obama saw it as "a recipe for something larger" (Gertner, 2015, para. 6). This recipe included mixing the tech surge's original directors—including CTO Todd Park and Mikey Dickerson—with Obama staffer Hayley Van Dyck to cook up a new government agency: the United States Digital Service (USDS). This agency was tasked with rewriting the government's digital infrastructure, broadly applying the techniques, approaches, and solutions applied to fix HealthCare.gov across the federal government.[2] The agency moved into a row house down the street from the White House and began hiring "top technologists to serve tours of duty, working on the nation's biggest challenges" (United States Digital Service [USDS], 2017, tagline lead page). In creating USDS, Obama hoped for viral and sweeping—rather than isolated and incremental—technological changes.

USDS marked progress in the Obama administration's ongoing effort to reshape the United States into what the first CTO Aneesh Chopra (2014) called an "innovative state." USDS's roots are in the programs pioneered by Chopra and former President Obama, including the Presidential Innovation Fellows program, which began in 2012 and brings young technologists to Washington, DC, in much the same way as the tech surge. Indeed, Presidential Fellows were quickly deployed to help with the failing website and were eventually also integrated into USDS. By 2017, the USDS reached across the federal government, partnering with the Departments of Homeland Security, Veterans Affairs, Defense, Education, Health and Human Services, and the Small Business Administration. It had created the College Scorecard to track college information and Web Design Standards to guide government website development, worked to consolidate and streamline veteran information processing through Vets.gov, and renovated immigration and refugee applications.

This research takes a closer look at USDS, which I call a "federal start-up," by unpacking the term *start-up* as both a cultural and political agent. As media and American studies scholar Melani McAlister (2001) noted, the "politics of culture is important, not because politics is *only* culture (or because culture is *only* politics), but because where the two meet, the political meanings are often made" (p. xviii). Methodologically, this article employs critical discourse analysis (CDA), investigating how power and dominance "are created and perpetuated through discourse within various political, social, and historical contexts" (Cramer, 2009, p. 220). I use *discourse* in the Foucauldian and post-Foucauldian sense to refer to the arena in which power, beliefs, and values are maintained. CDA assumes that political and cultural structures are not "fixed," but instead fluid, created in and through discourse; it assumes that "power manifests in the usage patterns of words and images and that individuals participate in these construction processes in their use of language" (Cramer, 2009, p. 220). Thus, this analysis focuses on media representations and popular histories, as well as public statements by political elites, famous technologists, and economic leaders. These are places a cultural critic might observe dominant patterns and where discursive conjunctures congeal and become visible.

Ultimately, a study of the discursive construction of *start-up*—of the term's meanings and values, its cultural logics and "common senses"—provides insight into why USDS emerged as it did and how it

[2] USDS's future remains unclear, but it has Congressional support. On May 27, 2016 H.R 5372 United States Digital Service Act was introduced and referred to the House Committee on Oversight and Government Reform; it would fund USDS FY2017—FY2026.

helped codify particular ideas about technology and technology industries into the federal government. In short, this explains how and why the start-up became what Fred Turner (2009) called a "cultural infrastructure" (p. 75), a construct with both ideological and structural power.

Innovation and Disruption: A Cultural History of the Start-up

From its beginning, USDS bore the "start-up" label. In *The Washington Post*, Aneesh Chopra noted that the USDS "elevates the capacity of government to operate like a lean start-up" (Eilperin, 2014, para. 8). *The Atlantic* called the agency the "Secret startup that saved the worst website in America" (Meyer, 2015, para. 1), while *Fast Company* nicknamed the agency "Obama's Startup" (Gertner, 2015). USDS embraced the label and even began describing itself on its website as "a startup at The White House" (USDS, 2017).

Figure 1. USDS website screen capture (Schulte, 2017).

The start-up label indicates that political elites, journalists, and those within the agency all saw it as an extension of private sector technology industries and practices into the federal government. The agency embraced this association because it did considerable cultural work for the agency. Over the previous four decades, the start-up had ascended to iconic status and had become a dominant symbol of American innovation and economic power. The word *start up* became part of the common lexicon in the 1970s to refer to venture-capital funds with potential scalable (even exponential) growth. In 1970, *The New York Times* described the Ford Foundation's $600,000 low-interest loan to Harvard Community Health as "start up financing" (Column 3, 1970, p. 29), and in 1971 described Data Transmission Co.'s attempt to raise "start-up capital to enter data transmission market" (Column 3, 1971, p. 60).

As the 1990s dot.com bubble inflated, the term *start-up* became associated more narrowly with Silicon Valley, with technology companies located there, and with rapid market success. In an article titled "Venture Capital: Looking for Stars," a *New York Times* reporter described "a very different breed of American financier than the Wall Street deal maker of the 1980s," one in which "three guys and a dream" work as "venture capitalists" to be "incubators of new technology and new jobs" (Lorh, 1992, p. 1). This coverage was primarily positive. Indeed, research shows startups were key to American economic power and growth between the 1970s and late 1990s. As the authors of *Start-up Nation* noted, "Without start-ups, the average annual net employment growth rate would actually have been negative" (Senor & Singer, 2009, p. 19). According to Census Bureau reports about the 1980s and 1990s, firms fewer than five years old, many of which were in California, provided the United States with the most employment growth (Senor & Singer, 2009). And, as Alice Marwick (2013) noted, venture capital funding in California increased, even during the economic downturn between 2007 and 2011.

As Lana Swartz noted, drawing a line between "start-ups" and "small businesses" is a difficult task (personal communication, April 28, 2017). Start-ups have historically shared several qualities, including low salaries with the promise of stock options, few benefits, little job security, long work hours, and sparse resources (Marken, 2000, p. 36). But the start-up is more than this. The start-up is both a "discourse and a praxis"—a way of talking and thinking about business as much as a way of structuring and conducting it. The imagined "normal" economy positions start-ups as an "alternative economic practice" from within Silicon Valley and a viable contrast to business or industry norms, even though they ultimately "realign" with norms. Calling something a start-up indicates, among other things, "scale" that is global and tied to "exponential growth"; "temporality" that is driven by a combination of venture capital funding, acquisition, and a winner-takes-all outcome; structures of intermediary or platform; and governance by terms of service (L. Swartz, personal communication, April 28, 2017).

Central to the form and cultural understanding—and the cultural power—of the start-up is the concept of "disruption." Scholarship generally roots the connections between Internet technologies and the disruption narrative to Harvard Business professor Clayton Christensen's 1997 bestselling book, *The Innovator's Dilemma* (Daneels, 2004; Latzer, 2009; Lepore, 2014). Christensen coined the term *disruptive technology*, in contrast to *sustaining innovations*. Sustaining innovations offered incremental rather than significant improvements. Disruptive innovations were significant breakthroughs that, although often considered inferior initially, eventually opened new markets and/or reconfigured price structures. Christensen's vision was binary in that businesses were "either disrupting or being disrupted" (Lepore, 2014, para. 4), noting the key role that "Internet protocol-based innovations" (Latzer, 2009, p. 601) play in disruptive change. Christensen's work helped frame the Internet as causing discontinuity and change, as something that could "invade markets and displace established incumbents" (Latzer, 2009, p. 606). This framework gave credence to the idea of the Internet as the "mother of all disruptions" in an anxiety-driven corporate culture in which "disruptive threats and effects were being detected almost everywhere" (Latzer, 2009, p. 608).

Communication scholar Michael Latzer and historian Jill Lepore both critiqued the concept "disruption" as they historicized it. Latzer (2009) described the slippery nature of the term *disruption*, noting how difficult it is to distinguish between "radical" and "incremental" or between "disruptive" and

"sustaining" innovations. A single innovation can be all of those at once. Latzer feared that the emphasis on disruption or the disruption narrative tended toward "technological determinism and monocausal interpretation: that certain technological innovations necessarily lead to disruption, that technology has certain impacts on business models and so forth" (p. 615). Lepore (2014) illustrated the way disruption emphasis leads to "circular arguments" like, "if an established company doesn't disrupt, it will fail, and if it fails it must be because it didn't disrupt" (para 26.) This presents an odd paradox in which instability becomes a sign of stability, disruption becomes simultaneously a key to success and failure. In both cases, disruption becomes a central goal unto itself.

Despite the challenges in defining disruption, the concept became a springboard for other ideas in technology, academia, and management (Danneels, 2004). Lepore (2014) argued that applying the term *disruption* outside the realm of business is potentially problematic because "obligations outside the realm of earnings are fundamentally different from the obligations that a business executive has to employees, partners and investors" (para. 28). Using failed investments in massive open online courses (or MOOCs) as an example, she illustrated the problems that emerged in the application of disruption to higher education. Although she argued disruptive innovation was "not a law of nature" but instead an "artifact of history, an idea, forged in time" (para. 37), she also acknowledged that it became an idea without critics, a dominant organizing construct in particular in the realm of technology development. Indeed, according to Lepore, "the logic of disruptive innovation *is* the logic of the startup" (para. 35, emphasis added). You cannot understand the start-up outside disruption.

The industry even began integrating the concept into its branding. Beginning in 2011, the technology industry website TechCrunch began holding the annual TechCrunch Disrupt conference, which became a premier place to launch start-ups and gain venture capital funding. The conference followed Christensen's idea of disruption in that it focused less on incremental innovation and more on "moonshots," "big ideas," or "audacious goals" (Temple, 2011, p. D1), such as the previous generation's moon landing project. This conference became the target of the HBO series *Silicon Valley* in 2014, which mocked the conference for being, according to the show's writers, "capitalism shrouded in the fake hippie rhetoric of 'We're making the world a better place,' because it's uncool to just say 'Hey, we're crushing it and making money'" (Marantz, 2016, para. 11).

As *The Wall Street Journal* reported, by the late 1990s and early 2000s, *the start-up* had become a popular term associated with economic growth. In an article titled "How Well Do You Know the Language of Startups?" *The Journal* charted the popularity of the term *start-up*, not only showing its steep incline between 2000 and 2010 (more than 600% growth in usage), but also showing how *start-up* rose alongside other terms, such as *small business*, *entrepreneur*, *Silicon Valley*, and *venture capital* (Schoenberger, 2016). The start-up had become imagined as an idealized vehicle for "disruptive" change, a term used in conjunction with coverage of the rise of Uber, Snapchat, Airbnb, Amazon, Google, and others. In the 2010s, the start-up—both as discourse and praxis—expanded well beyond technology industries to ice cream shops and even charter schools (Jones, 2014; Porter, 2015). By the time the HealthCare.gov crisis occurred, the start-up, as a term and as a mentality, was no longer insider speak for tech firms. By then, the start-up had become a free-floating modifier that conveyed a cluster of meanings,

including flexible, innovative, lean, disruptive, and poised to scale. As such, it could also become the solution to a diverse set of problems, including civic ones.

In creating USDS, Obama embraced this vision. As the first president to attend South by Southwest in Austin, Texas, Obama used the opportunity to recruit for USDS, describing it as "top talent from Google, from Facebook, from all the top tech companies" (Obama, 2016, para. 26) working for the government in a venture labor capacity for several months to multiple years. The then-president said that USDS meant that the "federal government from here on out is in constant improvement mode and we're constantly bringing in new talent and new ideas to solve some of these big problems" (Obama, 2016, para. 28). His administration hoped the agency would rapidly scale up, remake the federal government from the inside out, help government catch up with the private sector in terms of information technology, and create sweeping (not incremental) changes by sharing open-source code across federal agencies (Gertner, 2015). Arguably, USDS has done all of these. In addition to its work on healthcare, by 2016, USDS had already worked on streamlining taxes and student loan information systems, strengthening data security for defense agencies, refining acquisition processes with the Office of Federal Procurement Policy and redesigning the Small Business Administration certification process, as well as the projects on veterans, immigration, education previously mentioned.

These innovations "disrupted" in the ways the Obama administration hoped by integrating "public service" practices of government with "customer service" models common to industry. Calling the combination "citizen-centered services," USDS hoped Americans could use these new services to "engage with their government in new and meaningful ways" (Office of the Press Secretary, 2016). In this, USDS reinforced the notion that government should serve its citizens as well as a company served customers, institutionalizing corporate values and metrics in federal institutions.

USDS also integrated the organizational systems common to industry into the federal government in new ways, particularly in terms of finances. It used venture labor and "cost recovery" or "fee-for-service" models common in technology industries and start-ups rather than the traditional contractual models common in government. This meant that instead of bidding for government work and then winning the contract, the agency receives federal money based on the quality of the work rendered. By avoiding the time-intensive and complicated contract processes historically involved in federal labor, USDS could "create a pipeline for top technology talent from the private sector," making it easier for these workers to move between industry and government (Office of the Press Secretary, 2016). By August 2016, the agency had recruited 170 engineers, designers, product managers, and the like. Although the federal government has a long history of employing short-term labor and has employed technology sector consultants for more than a century, this labor structure opposed the public imaginary of the government worker. The stock character of the life-long bureaucrat who spends a career working for government appears in uniform ways in popular culture in much the same way as have "the maid" or "the coach" or "the journalist" (Fuller, 1990).

The Start-up: From American Cultural Ideal to Cultural Infrastructure

Culturally, start-ups became a vehicle for American ideals, a process that linked venture capital and venture labor with democracy. Imagined as an efficient and low-risk method of leveraging market forces to solve problems, the start-up was also imagined as a spreadable and flexible model of American-style bootstrapism, a type of the cool, portable, future-facing optimism (Pooley, 2016). When HealthCare.gov crashed, technology industries and start-ups were already embedded in long-standing assumptions about the Internet as itself democratic and as the seat of democracy. As mentioned, this allowed the start-up to become what Turner (2009) called a "cultural infrastructure," a means of integrating into civil institutions several values and models, including disruption, innovation, scalability, platform-centered approaches, and venture labor. As mentioned in the previous section, start-ups were held up as icons of American free markets and entrepreneurial spirit. But they were also imagined as building or strengthening American democracy and as expressive of America's values.

The associations between start-ups and American values root deeply into American history. In their discussion of what they labeled "Californian Ideology," Richard Barbrook and Andy Cameron (1996) observed the rise of a particular constellation of ideas, what they called "a bizarre mish-mash of hippie anarchism and economic liberalism beefed up with lots of technological determinism" (p. 31). These ideas originated in the West Coast tech corridor, but found broader traction among politically divergent groups, providing the New Left and New Right a "mystical resolution of the contradictory attitudes" in their mutual dislike of the state and mutual love of technological progress. Barbrook and Cameron noted, "Crucially, anti-statism provides the means to reconcile radical and reactionary ideas about technological progress" (p. 31). Californian Ideology predicted technology would "empower the individual, enhance personal freedom, and radically reduce the power of the nation state" (p. 17). In this vision, technology—regulated by the market and not the state—was not only a place on which to project democratic fantasies, but also the space where idealized democracy could happen. Fred Turner (2006, 2013) traced the origins of similar convergences of technology and American-style democracy through hopeful visions of the futuristic 1930s and psychedelic 1960s.

In the mid to late 1990s, these ideas began to take hold in the American collective cultural imaginary. Americans and their government leaders not only began thinking about the Internet as an "American virtual nation," as "a democratic virtual frontier in which individuals could self-actualize" (Schulte, 2013, p. 101), but also began to configure the United States as the center of the Internet. Frontierist "techno-physical fantasies" that imagined console cowboys settling the virtual frontier inserted the Internet into a well-established narrative of democratic interaction and actualization that looked to "technological energies to realize human potential" (De la Pena, 2003, p. 220). As Marwick (2013) noted, the core belief of the early 2000s Californian tech industry was "an ideology of Web 2.0 that ascribes both enormous power and profitability to social technologies" and "is a peculiar mix of entrepreneurial capitalism, technological determinism, and digital exceptionalism" (p. 4).

Academics, technologists, and activists explored these ideas, often distributing hopeful visions of the potential of communication technologies to improve American democracy by, among other things, increasing governmental efficiency, transparency, and accountability. Democratic hopes for technology

also included transforming citizens, not just government. Technology would increase information, energize citizens, more evenly distribute participation, and create citizens who could not be oppressed by state agents, or even work to spread American-style democracy around the globe (e.g., Benkler, 2006; Fountain, 2001; Kelly, 2010; Newsom & Dickey, 2014; Schmidt & Cohen, 2014; Sunstein 2006; Zittrain, 2009). These hopeful sentiments had their critics. Evgeny Morozov (2011) has critiqued what he called "cyberutopianism," or the "naïve belief in the emancipatory nature of online communication that rests on a stubborn refusal to acknowledge its downside" (p. xiii). Siva Vaidhyanathan (2004) termed this "techno-fundamentalism," or the "blind faith in technology as a simple solution to complex social and cultural issues" (p. xiii).

Regardless of the critiques, positive visions of "digital governance" and "e-governance," and of "digital" and "networked" citizens dominated in the 1990s and beyond, resulting in federal, state, and local technology initiatives of many shapes and sizes and even leading to the nomination of the Internet itself for a Nobel Peace Prize ("Internet," 2010). In some ways, the USDS merged two of the top visions of digital governance: "new public management" and "networked governance." The new public management approach stems from work in public choice (Tiebout, 1956). This approach emerged in the United States in the 1980s and focused on remaking government transactions into market or marketlike transactions. It assumed that the public sector served its populations best when it mimicked the private sector and therefore focused on "introducing market mechanisms both within public administration and in the relations between the public sector and the population" (Scupola & Zanfei, 2016, p. 239). This vision resulted in the downsizing of the public sector and upsizing of privatization in the hopes of increasing efficiency, maximizing markets, and viewing citizens as consumers.

Networked governance, introduced by Bennington, Butler, and Hartley (2002), assumed that the public sector served its population best when people could contact leadership directly and often. The model focused on expanding communication technologies that allowed "greater involvement of users" in exerting pressure as "stakeholders" in government (Scupola & Zanfei, 2016, p. 239). This vision resulted in more direct communication channels between elected officials and constituents as well as new forms of datafication, metrics of public sentiment on local, regional, national, and even global scales.

USDS combined these two models of digital governance. It hoped to expand communication networks and create more citizen-stakeholders in government in a way that reflected the networked governance model ideal. It hoped to create these expansions through means idealized in the new public management model. By combining the two, USDS seemed to fit with the logical trajectory of improvements in government, especially those established in the 1990s, when the Clinton administration began investing heavily in digital infrastructures, initiatives driven largely by Al Gore and his chief policy advisor Elaine Kamarck. Explicitly part of their plan for government was to model the private sector's strategies for customer service. As Kamarck said, the private sector "started using computer technology to make things easy for people," but "if the government were an airline, nobody would fly it" (Chopra, 2014, p. 21). Kamarck and the Reinventing Government (REGO) team began efforts to "tap the power of the latest industrial revolution: the information technology (IT) revolution," a shift that would result in a project such as FirstGov, "a one stop website for government information and transactions with connections to 27 million web pages" (Chopra, 2014, p. 21).

USDS finds its policy roots in these initiatives. And it finds its cultural roots in the hopeful ways that leaders such as President Bill Clinton and Vice President Al Gore imagined these initiatives. Indeed, USDS agency leaders positioned the agency as a point of continuity with previous government efforts and with previous efforts to reform government. As cofounder and then-deputy administrator of the USDS Hayley Van Dyck explained in a video about USDS,

> Figuring out how we can use technology better to help the lives of American people is not a new challenge for the federal government. This is something we have been working on since day one of the administration and administrations before us have tried to solve as well. (White House, 2015, [video clip])

Like the 1990s REGO projects, USDS hoped to build internal capacity to decrease the number of consultant contracts. Unlike those projects, it imagined infrastructural change emanating from USDS and spreading out virally. It also imagined collaboratively combining technologists and policy specialists as itself a means to reform, one that would increase both diversity and efficiency. Thus, USDS profited from decades-old common senses about what government should look like in the digital age. By tapping new public management and networked governance models and picking up many of the ideas dominating government reform strategic plans for more than 30 years, creating a federal start-up became a commonsense solution.

USDS was also driven by an ideology shared by both government and industry: neoliberalism. Neoliberalism, described by Alice Marwick as "the theory that the free market has become an organizing principle of society" (2013, p. 12), became, she argued, also the dominant organizing logic in technology industries. Neoliberalism took hold in Reagan-era privatization policies and expanded in subsequent administrations, and postulates that democracy needs capitalism, that capitalism is good for democracy. It integrates the free market into democratic principles of liberal individualism in what Lisa Duggan (2004) called the "cultural politics" of neoliberalism, which encourages people to think of the economy and culture as two discrete zones. This positive association between capitalism and democracy viewed capitalism (especially late capitalism) as creating naturalistic and self-selecting efficiencies that the government should emulate. The notion that citizens "vote with their pocketbooks" and the legal status of corporations as persons map market exchanges onto civic expressions to further comingle democracy and capitalism. USDS embodied this conflation in that it assumed that communication technologies, if properly implemented through efficient market strategies, could bring market efficiencies to the government and could facilitate idealized communication between government and its "customers." USDS also manifested the idea that corporate actors were the ideal means to serve individuals.

Indeed, the dominance of neoliberalism led to the valorization of certain places within the United States as particularly important to America's future, in large part because they were regarded as producing technology start-ups. News coverage described Silicon Valley, Silicon Alley in New York City, and other tech industry locations like Austin, Texas, as fertile ground for growing American dreams, areas where entrepreneurs incubated the start-ups that would help build America's future. But these descriptions positioned these places as successful only if government stayed away. CNBC wrote, "Austin's uniquely friendly entrepreneurial ecosystem also gives it an edge . . . [although] Austin's regulatory

climate is a frequent source of complaint" (Pofeldt, 2016, para. 32). Technology corridors had long held a vaunted role in American culture as sources of progress and prosperity, as agents renewing the American Dream, as locations of the renewing entrepreneurial spirit that drove California Ideology, and as locations where the government should interfere with great caution. During his term, for example, President George W. Bush often cited Silicon Valley as the location of "the spirit of America," of American "enterprise and the ultimate American dream," in particular when advocating for "freeing the Internet from duties and tariffs and [proposing] a permanent Federal tax credit for research and development" (Berke, 1999, p. A14). The technology industry and its physical spaces, then, became culturally positioned as idealized embodiments of the neoliberalist ideology that rose to power during the Reagan administration and achieved dominance in the administrations thereafter. This aligned the entrepreneurial spirit of the government with the cultural and economic tenants of neoliberalism, a merge that happened on the back of cultural visions of technology.

The idealized associations also mapped onto technology industry workers themselves, who enjoyed cultural validation. In the 1980s and especially the 1990s, technology industries were increasingly imagined as building the future; those with technological power became gurus who had harnessed heretofore unimagined power (Schulte, 2013). Workers within the technology industry were understood as "disruptors"—those whose visions irrevocably changed the everyday lives of ordinary Americans for the better. As Marwick (2013) wrote, the "immense wealth of young technologists glamorized entrepreneurs as the rock stars of twenty-first-century capitalism" (p. 3). In the early 2000s, technology entrepreneurs "were thought to embody bravery, gumption, self-promotion, and creativity, the predictors of contemporary success" (pp. 3–4). These technologists were not just engines of economic goods. They were also makers of public goods, "entrepreneurial citizens," to use Lilly Irani's term. These "agents of social progress through software" gain "legitimacy from the global prestige of technology industry work practices" (Irani, 2015, p. 800). Irani's "entrepreneurial citizen" is a "bias to action" actor, a "doer" who can "cut through bureaucratic red tape and lengthy deliberations in pursuit of efficient and inspired progress" (p. 807) manifesting in "visible outcomes" and not just procedures. As Irani noted, this type of "bias to action" agent was the Google human resources ideal, the "Googley" hires most prized (p. 816).

This worker was not only a Google ideal, but also a neoliberal ideal. It evolved over several decades through a shift in various forms of capital. Cultural theorist/sociologist Pierre Bourdieu (1993) mapped what he called fields to illustrate the overlaps and divergences between cultural, financial, and social capital. In his model, sometimes financial capital inversely relates with cultural capital (such as the starving artist teeming with authenticity vs. the nouveau riche artist without it). If we mapped technologists between the 1980s and 2010s, we would see a shift from low to high positions of capital, including financial, social, and cultural. By the late 1990s and early 2000s, coding was cool, and nerds had cultural cachet and a budding entertainment genre (*Freaks and Geeks*, 1999; nerdcore music, 2000; *The Big Bang Theory*, 2008; *The Social Network*, 2010; *King of the Nerds,* 2013; *Jobs*, 2013). Silicon success was sexy, start-up entrepreneurs rose to celebrity icon status, and, importantly, success in the technology industry was perceived as the norm.

Americans have long thought about their national history as a history of human enlightenment and improvement through technological innovation (Adas, 1989; Schulte, 2013; Volti, 1992; Williams,

1975). Still, an economic and cultural imaginary focused on start-ups helped replace "progress" with "innovation." As media scholar Joel Dinerstein noted, "progress" used to mean social progress when the United States was founded but shifted to mean "technological progress" (Schulte, 2007). This shift from progress to technological progress reinforced the idea that new was necessarily better. Lepore (2014) wrote, "innovation is the idea of progress jammed into a criticism-proof-jack-in-the-box" (para. 9). This "rhetoric of disruption" positioned start-ups as "ruthless and leaderless and unrestrained, as they seem so tiny and powerless, until you realize, but only after it's too late, that they're devastatingly dangerous. Bang! Ka-Boom!" (para. 7). This highlights the surprise felt by the disrupted industry and the anxiety felt by established industry that disruption might lie right around the corner. In some ways, the tech surge gave HealthCare.gov much-needed legitimacy by cloaking it in the disruptive allure of the start-up. In much the same way, USDS reclaimed the imagined power of start-up innovation and remapped that disruption on behalf of America.

This context explains the commonsense cultural logics that a team of "Googley" entrepreneurial citizens in a kind of permanent, disrupting hackathon would best serve the American public. This logic fit in with a familiar story about privatization, risk, and labor. In her book *Venture Labor*, Gina Neff (2012) tracked the ways Reagan- and Clinton-era privatization policies, cultural tropes about economic freedom, and entrepreneurship worked together to drive the "calcification of individual perceptions into structures" in American markets (p. 144). This process reconstituted risk and "made taking chances seem like a good idea at the time" (Neff, 2013, p. 3), even knowing only few would profit . Even after the dot.com bubble burst in the early 2000s, in the face of economic destitution, the notion that taking chances was a good idea dominated. As Neff (2013) wrote, "the lure of risk—and by this I mean the idea of taking chances—has replaced the fear of uncertainty as the predominant economic rhetoric for the new economy" (p. 141). In the wake of economic collapse in 2008 and within a larger metanarrative of imminent American decline articulated by Noam Chomsky (2016), the embrace of risk and disruption staved off uncertainty. It made sense that "venture government" guided by empowered entrepreneurial citizens could serve the national interest, could goose American regeneration and reinvigoration as it had industry, that venture government could lead to a more involved citizenry just as venture capital led to more engaged consumers. The start-up could step in as a ruthless American defender against newly established foreign competitors, and it could productively disrupt American democracy and governance, just as—at least in the eyes of many consumers—Uber productively disrupted taxi monopolies, Airbnb disrupted hotel markets, and the Khan Academy disrupted stagnated educational institutions.

Not only did the disruption associated with start-ups map onto historic notions of American progress, but it also became associated with a means to support American efforts to reestablish dominance in global markets. It speaks to an anxiety about finding a way forward in uncertain times. In this context, USDS helped integrate several coexisting and dominant ideas: that disruption was good and happened through technology start-ups, that technology enhanced American democracy, drove American progress, and protected the American Dream, and that technology industries, start-ups, and disruptive technologies would be powerful allies or weapons in the face of increasingly uncertain domestic and global economic conditions.

In some ways, the plan worked to save what was something of a venture government product: HealthCare.gov, a direct-to-consumer technological solution to the government administration problem of coordinating information between companies and state and federal agencies. At the very least, HealthCare.gov and the tech surge ushered in one the country's first forays into venture government: USDS. Indeed, the main diagnosis of the HealthCare.gov crisis was that the website was not "venture" enough. It needed more venture labor from people who had successfully converted venture capital into consumer products. As this section has shown, this diagnosis was embedded in the historical idealization and "Americanization" of start-ups, of disruption, of the confluence between venture labor and entrepreneurial citizenship, and neoliberalism as it manifests in technology and government. In many ways, the effects of the language of the start-up were not disruptive in that they expanded neoliberal initiatives that root back 40 years. Still, using the labels "disruption" and "entrepreneurs" made neoliberalism seem new again.

Rebooting Government: Federalizing Productive Failure

The start-up became an icon in American culture and a symbol of American power, but why would Americans want one in the federal government, especially after the dot.com bubble burst? Disrupting government was attractive to Americans because they disliked their government. A 2015 Pew survey found that American public approval of the federal government was just 25%. One of Obama's major long-term goals had been to change how the public viewed government. The Affordable Care Act was, he hoped, exactly the kind of liberal project that could rekindle government as a focal point of American pride in perhaps the way the Works Progress Administration restored American faith under President Roosevelt. A *Washington Post* article noted that President Obama, as an "advocate of big, bold actions to address large and seemingly intractable problems . . . struggled to convince the public that government is equipped to carry out such transformational changes" in the wake of HealthCare.gov's implosion (Balz, 2013, para. 1). As the first "Tech President"—the first candidate to effectively leverage social media—expectations for HealthCare.gov were high, and so its failure was even more effective in reinforcing public distrust in the federal government.

In contrast to the federal government, technology companies enjoyed considerable popularity. In the same 2015 survey that cited 25% approval of the federal government, technology companies scored a 71% (Pew Research Center, 2015). In this context, both the tech surge and USDS offered Obama a political life raft of sorts. Obama could integrate tech companies into the government and thereby harness some of the tech industry's popularity. By encouraging the tech industry allies to lend not only their labor and insights but also their *credibility* to the federal government and to Obamacare, the USDS worked like celebrity marketing.

In a country suspicious of government power, the primary concern voiced about USDS was that tech industry workers and corporate leaders would not have *enough* power, that the tech surge would be a start-up run by people with neither start-up nor business experience (Golstein & Eilperin, 2013). As one *Newsweek* reporter wrote,

> The government needs to understand its core competencies and get out of everything else. . . . In about two seconds, venture capitalists in Silicon Valley would've funded a troupe of pimply 25-year-olds working out of a Peet's Coffee & Tea who would've built an exchange that felt like a cross between AirBnB and WebMD. (Maney, 2013)

Indeed, it took just over a month for the tech surge computer industry workers to reboot HealthCare.gov into functionality. The tech surge was, by virtually all accounts, a tremendous success.

Coverage of the HealthCare.gov debacle cited a 2013 study conducted by the software research firm the Standish Group that reported that only 6% of 3,555 federal government projects between 2003 and 2012 with labor costs of at least $10 million succeeded; the other 94% were over budget, were behind schedule, failed to meet expectations, or were abandoned (Thibodeau, 2013). However, many estimates put the start-up failure rate in Silicon Valley as roughly the same, 90% (Carroll, 2014), which explains the common parlance for billion-dollar start-ups: "unicorns" (Adams, 2017). This does not explain the confidence gap between the government and technology industries—what might is that those low estimates did not become part of the discussion around the tech surge and USDS in part because in Silicon Valley, failure is a good thing. Its mantra is to "fail fast, fail often." The conference called "FailCon" highlights and depathologizes failure. The mentality—that to succeed is to win and to fail is to win—is a bedrock paradox that allows for unlimited experimentation and risk, hallmarks of American bravado but ones previously condemned in government spheres because of the potential for wasted taxpayer money and public embarrassment.

> When a startup fails, that's a success, since epidemic failure is a hallmark of disruptive innovation . . . when an established company succeeds, that's only because it hasn't yet failed. And, when any of these things happen, all of them are only further evidence of disruption. (Lepore, 2014, para. 6)

Failure was a natural consequence of experimentation. Irani (2015) noted this when she wrote that "entrepreneurial citizens' mistakes were hardly cause for critique. Rather, they were expected costs of experimenting in pursuit of social progress" (p. 816).

The technology industry's embrace of failure as productive provides the industry and its workers an inoculation usually unavailable to the U.S. government. But the creation of a federal start-up aimed at disruption worked to rebrand the federal government with Silicon Valley's "productive failure." *Rebrand* is the correct term instead of *introduce* because even before the HealthCare.gov debacle, the federal government successfully navigated technological failure in the launch of USAJOBS.gov. The website launched in 2011 and was designed to consolidate hiring options for federal positions. The initially buggy site returned bad searches, failed to process stored data, and left many users unable to log in at all. However, one year later, the site improved so much that it was named "one of the best 10 websites for your career" by *Forbes* magazine. The strategy of incremental improvement—of launching and then fixing problems—deployed for USAJOBS.gov is similar in industry and government websites, although because the government traffics in public availability, it is harder for it to release beta versions in batches to subsections of the population as many in the industry do. The strategy used here resembles what Gina

Neff and David Stark (2004) have called "permanently beta," using a "fluid organizational form resulting from the process of negotiation among users, employees, and organizations over the design of goods and services" (p. 175). This suggests that government's technological history may not be as different from Google and Apple as often imagined. Yet, the government does not get the same leeway as a company. When a company has a buggy release, the company is experimenting and learning. When the government has a buggy release, it is a sign of incompetence. So, in the context of public expectations, USDS was a federal attempt to harness *industry expertise* and *credibility*, but—importantly—also an attempt to harness *failure itself* as productive. As paradoxical as it sounds, this shows how failure might fit within long-standing national progress narratives about American democracy.

USDS was created during a drop in venture capital funds. During the 2008 economic crisis, U.S. venture capital funding dropped to levels not seen since the dot.com crisis. Funds remained low between 2008 and 2013 before eventually spiking again in 2014 and 2015 (Garland, 2015). Many economists in this period leading up to and during the economic crisis shared the concern expressed by Harvard Business School professor John Kao's 2007 book subtitle: *America Is Losing Its Innovative Edge*. Scholars Dan Senor and Saul Singer argued that one reason that Israel could become the country with the highest density of start-ups in the world was the migration of venture capital from the United States to Israel. This migration led Google executive Eric Schmidt to say that "after the U.S., Israel is the best" place for entrepreneurs in the world (Senor & Singer, 2009, p. 15). The migration was enabled by the Israeli government's willingness to "retain a 40% equity stake" that partners had the option to "cheaply buy out" (p. 166). This support meant "that while the government shared the risk, it offered investors all of the reward" (p. 167). As Senor and Singer showed, in times of economic crisis, venture capital flows toward security; in the case of Israel, it flowed toward government risk management. Perhaps, in the wake of a major U.S. economic crisis and in the context of continued dropping venture capital availability in some tech industries, USDS made sense economically from the perspective of start-up laborers. Why not do the exciting work of a start-up in the feel-good-give-back civil service sector with the financial security offered by government-backed funding, especially if government itself was beginning to feel like a venture?

Conclusion

This article maps the cultural history of the start-up to track its rise as an American icon—how it became a commonsense solution to technological, nontechnological, and even civic problems. Idealization and expansion of the start-up as a "cultural infrastructure" made it easier for its values and financial structures to spread into civil institutions (Turner, 2009, p. 75). Creating a federal start-up felt like the right thing to do because Americans already saw start-ups as ideal means for quick and productive change. Likewise, over the previous four decades, the tech industry became essentially American, associated with empowering citizens through consumer products, saving the American economy, and serving people. By contrast, they saw government as broken.

But as frustrated computer historians have long known, in many ways there has *never* been a dividing line between government and industry. Much of what built the tech industry originated *in* the federal government, so the story of creating the USDS is primarily story of continuity rather than disruption. And yet the integration of tech employees and tech culture and values into the government

feels new—as does the level to which tech industry leaders have become the keepers of conventional wisdom, even nontechnological wisdom, so much so that they have become in some ways presumed promoters of the public good. Thus, the power of what Raymond Williams might call the "structures of feeling" around tech has expanded far beyond technology itself, beyond the interpersonal, the economic, the social, and into the governmental at infrastructural levels.

This structure of feeling extends to visions of citizenship as a market practice. Americans increasingly believe they only have two choices: to either be *citizens* served *public goods* by a *clunky government,* or to be *consumers* served *market goods* by *agile companies.* Through the USDS, the government can appropriate venture labor successfully leveraged in industries. Key to this development was the reimaging of the bias-to-action-entrepreneurial-citizen—the Googley laborer—as the ideal government worker. Mapping the start-up onto the agency, with its associations with Silicon Valley exponential success, lean efficiency, and market focus, has helped the agency feel like a logical solution to the problems ailing government. It allowed the government to rebrand itself as a venture, a government that uses venture capitalist modes of production efficiently, a government whose failures are productive. With USDS, the U.S. government can remake itself in the image of a tech corporation by promoting the viral changes occurring in its agencies.

However, the agency also provided technology industry—its workers, its cultural values, its practices—unprecedented influence in federal institutions. What this influence will mean remains unclear. In the face of the cultural logics glorifying start-ups and their products, it is important to remember that technologists and academics have long argued that infrastructure is never ideologically neutral (Bar & Sandvig, 2008; Lanier, 2010; Marvin, 1988; Starosielski, 2015; Turner, 2006). Yet Americans have a history of seeing technologies as operating outside ideology, as natural, as Leo Marx's "machines in the garden" (Marx, 1999). In this context, USDS offers an opportunity for politicians and academics to ask about the expansion of consumer logics and market-driven practices, assumptions and values into government institutions. Will corporate success necessarily translate into civic success, especially given that those two are often judged on different metrics? Is the creation of USDS extending beliefs about risk dominant in corporate circles into the federal government? What might that mean for the federal government's historical role providing social programs and regulations as a hedge against risk? Does the language of the technology industry depoliticize government programs as "innovation?"

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