

A Planet of Civic Laboratories

Peter Hirshberg spins his laptop around. Bold white letters on a black background spell out *OccuAPI*. “I have no idea what it means,” he chuckles. “But I like it.”¹ It’s November 2011. A dozen blocks south, the Occupy Wall Street protests are reaching their violent zenith in Zuccotti Park. The city is on edge from daily marches that take the “99 percent” and their riot gear-clad chaperones tramping across Manhattan. Police helicopters hover like angry wasps overhead. Hirshberg’s neologism is an attempt to capture the excitement of the Occupy movement as well as the more subtle technological transformation of citizen-government interaction by open data and apps.

America is no stranger to youth movements, though it had been a long time since one loomed so large in the public mind. The closest analogue is probably 1967, when tens of thousands of young people descended on San Francisco’s Haight-Ashbury district. In a hothouse of social experimentation that became known as the “Summer of Love,” they shared everything—housing, food, drugs, and sex. The enormous cultural impact of that psychedelic freak-out on American society can be felt today, and it still casts a long shadow over San Francisco. There, Hirshberg has been a driving force behind a new creative space just down the hill from Haight-Ashbury, the Gray

Area Foundation for the Arts. Both physically and spiritually, it sits at the intersection of that 1960s counterculture and a new technoutopianism. It's just a few steps to either Twitter's headquarters or the head office of Burning Man, the radical art festival that builds a temporary city in the Nevada desert each summer.

Though he takes inspiration from the hippies, Hirshberg is politically pragmatic. He soon slaps his laptop shut and stops playing dumb. "Look," he says, "in the 60s you protested the establishment. Today you just write to its API." For Hirshberg, the way to accelerate change is to plug revolutionary software directly into government databases.

Nowhere has the creative urge of smart-city hackers come into such direct synergy with efforts to reinvent city government than in San Francisco. The story begins in November 2010, when longtime mayor Gavin Newsom was elected as California's next lieutenant governor. With more than a dozen candidates tossing their hat in the ring to succeed him at the city's helm, and the local economy once again riding a frothy wave of start-up-driven innovation, Hirshberg saw an opportunity to spark a public debate about how technology could be harnessed to improve government. He first tried to convene a workshop with the candidates, but was overcome by what he describes as "enthusiastic data syndrome." Things didn't click. It was "the classic conversation the geek has with the business user," Hirshberg says.² The candidates didn't get it.

Evoking a left-wing hero of the 1960s, Abbie Hoffman, whose unforgettable *Steal This Book* was a foundational text for the Youth International Party (the "Yippies"), Hirshberg explains how he hacked the election. "I realized, all we need to do this summer is come up with ideas worth stealing. We need the political class to see this as a form of innovation." More than four decades after the Summer of Love, in 2011 he proposed a Summer of Smart. An epic civic hackathon, Summer of Smart was designed to engage the candidates and their constituents around tangible tools, rather than abstract concepts like open data. Instead of asking for resources, they would turn

the tables on candidates and offer up solutions. San Francisco would once again become a social laboratory. But this time, peoples' minds would be opened not by LSD but by the wonders of information technology.

The next step was getting people involved. Hirshberg knew how to enlist techies, artists, and activists—the Gray Area Foundation already had an impressive community around it. But he needed to plug government in. Apps contests in other cities had been organized by government, which maintained an arm's length relationship with the contestants. Aside from sharing data, there was no real collaboration between government and citizens. So Hirshberg reached out to Jay Nath, the city's director of innovation. An up-and-comer at City Hall, Nath had recently pushed through the nation's first municipal open-data legislation. Instead of haphazardly releasing data for apps contests at the mayor's behest, San Francisco's agencies were now required by law to systematically share as much as could be done safely and legally.

But even with such progressive legislation, the city was sitting on a massive stockpile of unreleased data. By Nath's estimate, there were tens of thousands of databases hiding in the city's servers, including a ten-year digital record of over a million police reports. Nath wanted to find more ways to get data into the hands of people who could create valuable services with it. "The city is a monopoly. We are stewards of the data. This is data that belongs in the public domain," he said.³

Openness was already paying off for Nath. When he joined the city years before, he had overseen a budget of millions and a staff of twelve working on the city's 311 system. Working with OpenPlans, a New York-based nonprofit, he had launched an open 311 system in March 2010. For the first time, it was possible for anyone to create apps that could send data back upstream to the city's computers—noise complaints, service requests, pothole reports.

The new system held the potential for a vastly expanded, bidirectional flow of timely information between citizens and government,

much as Hirshberg had envisioned. By the summer of 2011, budget cutbacks had reduced Nath's staff to two. But by expanding access to this data, he explained, "I was actually getting more done."

Summer of Smart came to a head during three summer weekends in a series of hackathons that Hirshberg recalls as "electric." Starting on Friday at 5:00 p.m. with an inspirational talk, each dealt with a different area of city life. The first focused on community development and public art; the second on sustainability, energy, and transportation; and the third on public health, food, and nutrition. Over the course of the summer some five hundred hardware hackers, software developers, students, artists, designers, and community activists put in over ten thousand hours of volunteer time to create twenty-three interactive projects.⁴

Unlike previous city-sponsored apps contests, Summer of Smart's success stemmed from its laser-sharp focus on problems and its intense face-to-face teamwork by a broad swath of stakeholders. Nath recruited the front-line managers who run the city's transportation, housing, and schools day-to-day so that people with firsthand experience with the challenges of government could help steer the work of the hackers. Hirshberg recounts how one discussion around fixing the city's slow and unreliable Muni transit system turned into an ad hoc visit to the nearby control center. The outing thrilled the digital trainspotters who had given up their weekend to help the city, but more importantly, it showed them the real capabilities and constraints public managers face every day. The intensity of the events pushed people to focus and collaborate. "Fast prototyping was what got the partners to engage each other," says Hirshberg.⁵ The participation of the mayoral candidates—who all dropped in—tantalized volunteers with the prospect of real civic impact.

Some compelling apps emerged from Summer of Smart. GOOD-BUILDINGS mashed up city records with related information from across the web, like walkability scores, to guide people seeking commercial space in sustainable buildings. Another app, Market Guardians, used game mechanics—awarding virtual points and badges to

the most active participants—to entice young people to map urban “food deserts” by tracking the availability of healthy food at stores in inner-city neighborhoods. In October, the winning teams presented their projects at a mayoral candidates’ forum just three weeks before the election. Nath hammered the message home, telling his colleagues in government, “the community isn’t just a way to define, but also a way to solve problems.”⁶

In 2012, with Hirshberg’s protégé Jake Levitas now at the helm of its civic hacking efforts, the Gray Area Foundation began to refine and export its model for civic engagement around smart technology, launching what it now called “Urban Prototyping” events in San Francisco and Singapore. Next came London in early 2013, with potentially dozens more events around the planet to come. Whereas Summer of Smart’s key innovation was its intensity and participation of nontechnies, Urban Prototyping raised the stakes by focusing on quality and sustainability. The process began with an open call for projects that combined digital and physical elements of the city, especially open-source designs that could be readily replicated in other places. In San Francisco, over a hundred proposals were submitted; eighteen were selected. They received up to \$1,000 in funding, a workspace, technical assistance from Levitas’s group, and support from the city to deploy their prototypes along a street in San Francisco’s mid-Market neighborhood. Reliving the Summer of Smart, the teams gathered for a weekend “Makeathon” to bring their designs to life.⁷

Summer of Smart was itself a clever hack, ushering a marginal movement from the geek fringe to the center of civic debate. More importantly, it established a new model for government and citizens to work together to use technology to address pressing needs. San Francisco has shown that it won’t simply install shrink-wrapped software dreamed up in corporate labs. It will be a smart city that thinks for itself, a permissive place to prototype the future.