Tech in the City

San Francisco and Oakland offer lessons on how to both foster technological innovation and protect the public interest.

By JUELL STEWART

Photograph by VINCENT LAFORET
HUNDREDS OF TECHNOLOGY COMPANIES have made the Bay Area their home. Because of their unique position as a fulcrum of innovation, San Francisco and other cities in the region are on the front lines of dealing with the many challenges associated with the fast-growing list of platforms.

In many ways, we are all the beneficiaries of that geographical hub of innovation—the efficiency, optimization, and opportunity that comes from rapid technological advancement—but locally there are losers, too. Income disparity, growth management challenges, housing shortages, and mounting unaffordability put a profound strain on the Bay Area. These real-world issues force cities to balance the tech world’s nominally utopian ideals and equitable policy making. Fortunately, city and regional governments are becoming savvier about introducing regulatory levers designed not only to capture the economic benefits of new technology but also to mitigate its negative effects.
Sidewalk wars

In late 2017, a robot named Marble (also the name of its parent company) started rolling down sidewalks alongside humans, delivering food in San Francisco’s Mission District. The company uses robotic technology to tackle the thorny “last-mile problem” surrounding services that deliver food and goods to urbanites. But, as
include anticipating emerging technology before it's deployed; evaluating permits on a case-by-case basis according to its impact on public spaces, equity, accessibility, data, ethics, and security; creating a “front door” to help innovators navigate the permitting process; and developing a collaboration playbook to clearly communicate the responsibilities and expectations on behalf of both the city and the companies seeking permits.

While a company’s responsibility is to its shareholders, cities are charged with protecting the public interest. One of the working group’s tasks is to develop criteria to guide city agencies in making clear decisions when it comes to the permitting process, no matter what unanticipated forms of new technology spring up in the future.

“[We’re] trying to find that balance between supporting those operating emerging technology and protecting our public infrastructure—residents, their privacy, labor, more vulnerable communities,” says Yee’s legislative aide, Erica Maybaum.

A clear permitting process will ultimately allow operators to develop technology that fits within the city’s boundaries.

‘Techquity’ across the Bay

Early last year, San Francisco and Oakland were hit with a deluge of Birds, Limes, and Scoots. This was an invasive species of an unprecedented variety, as app-enabled dockless scooters began to fill sidewalks (and, in some rogue cases, even trees and lakes). To planners at OakDOT, Oakland’s department of transportation, it represented an unexpected solution to “last mile” issues in neighborhoods like East Oakland that are historically starved of transit

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**SAN FRANCISCO’S EMERGING TECHNOLOGIES COLLABORATION LIFECYCLE**

The problem: To anticipate the impact and benefits emerging technologies may have requires greater awareness that they are coming. Recommendations: The Emerging Technology Working Group suggest four strategies inform future legislation on emerging technologies. One of them, the Collaboration Lifecycle (below), illustrates a series of structured collaborations with companies, the community, and city staff to help San Francisco build relationships and better anticipate what’s coming next. See them all at bit.ly/2P9imYe.

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infrastructure and infrequently served by Alameda County Transit and Bay Area Rapid Transit, the region's commuter rail.

Oakland is unique in that its city departments, community investment, and policy-making efforts are evaluated by its Department of Race and Equity, which launched in 2016. That department quickly began to notice a mobility trend this year: Black and brown youth were among the earliest adopters of scooters. Considering their needs, and ensuring that scooter companies are responsive to them, is an example of how city government can elevate equity in creative ways that aren’t typically thought of as related to equitable outcomes. Though sometimes cities can focus equity only on policy areas like housing and education, Oakland has recognized that successful equity initiatives permeate throughout all municipal functions.

For most cities, emerging technology is squarely in the mobility realm, presenting new opportunities to develop shared frameworks and best practices—and incorporate the complex needs of low-income communities, says Clarrissa Cabansagan, the new mobility policy director at TransForm, a local transportation advocacy organization. But in many cases, the go-to planners’ goal of transforming drivers into cyclists or pedestrians ignores a reality exemplified in the Bay Area’s demographic shifts: As rising rents displace people and families from the transit-rich urban core and shifts them into areas built with auto dependency in mind, the gaps in transit alternatives pose a crucial concern.

“We assume that all folks have 9-to-5 jobs. We’re planning for peak levels of service. But what about the woman with kids and multiple jobs who has no other alternative to [using] her car?” Cabansagan says. “I want technology to highlight [those needs]. If we don’t highlight those trips as important, if we treat them as the CEO of Lyft getting from meeting to meeting, we lose that opportunity.”

San Francisco is trying to get ahead of—not just react to—new technologies and the opportunities and challenges they bring. For now, delivery robots like this Starship Technologies model are banned from most places in the city.
A longtime equity advocate and transportation planner from San Francisco, Cabansagan began working with OakDOT, the city of Oakland, and private companies to ensure that community voices were at the table so that they could capture transit users routinely ignored by planners and technology companies. Three years ago, when bike share and car share were on the forefront of mobility discourse, Oakland planners brought in Cabansagan and her organization to consider displacement implications. They found that the most successful conversations happen when planners can think beyond typical modes of engagement.

**Community focus**

This past year, with dockless scooters on the menu, OakDOT partnered with TransForm and other local organizations to do outreach in communities that have been historically excluded from planning processes, giving them more robust and meaningful insight on how residents actually use the technology and helping them identify needs that might not otherwise be surfaced. This approach allowed OakDOT to augment its limited staff with staff from other organizations who were already familiar with issues happening on the ground and, due to existing relationships with community members, could solicit candid feedback.

Now, TransForm is partnering with Lyft to expand bike and scooter share into East Oakland in an intentional way. Communities there have been empowered to negotiate with these companies for community benefits like jobs and meaningful investment. Cabansagan sees this as neighborhoods getting what they deserve from companies with a long history of extracting resources from the community without giving much back.

"The backlog of need isn’t just public investment; it’s public and private investment that contributed to the inequities we see today," Cabansagan says.

Another way OakDOT has leveraged its limited resources to tackle the scooter dilemma is by forming a Shared Mobility Advisory Committee, an ad-hoc, informal advisory group comprised of representatives from a number of disciplinary areas—affordable housing, economic development, environment, transit equity, city government (including BART), and city council members. The group developed a set of Shared Mobility Principles released in early 2018 (see next page) that guide transportation planners in meeting public needs when creating regulation around transportation technologies. Similar to San Francisco’s Emerging Technology Working Group’s recommendations, the Shared Mobility Principles are intended to establish clear expectations for companies looking to operate in Oakland, and to communicate OakDOT’s priorities to the public.

**Looking forward**

Other cities can look to San Francisco and Oakland as potential models for implementing anticipatory frameworks for emerging technology policy. But what about capturing the value those companies bring to the table?

Despite its nominally “progressive” ideals, the tech industry has often fallen short of good corporate citizenship. Last year, a new ballot initiative sought to change that pattern in San Francisco. Proposition C, which voters passed in November, was developed by the nonprofit Coalition on Homelessness to address the city’s homelessness epidemic.

The proposition imposes a gross receipts tax on businesses doing more than $50 million in total income, specifically allocating funding to a newly created Our City, Our Home fund. Based on the philosophy that the only way to tackle homelessness is to build housing, half of the fund will go to construction, permanent supportive housing, and preserving single-room-occupancy buildings through the Mayor’s Office of Housing and Community Development, creating an estimated 4,000 units over the next eight years.

Funds will also go to wraparound mental health services and renter protections. The effort could net the city around $300 million in dedicated funding. (As of our publication date, there was some dispute surrounding Proposal C; while the proposal passed by a 60–40 majority, because it contains specific budget allocations, some say it needs a two-thirds majority to pass according to California state law.)

Throughout the election cycle, Prop C became a de facto referendum on the social responsibilities of the city’s technology companies. The influx of high-wage earners has disrupted the entire region’s housing costs and has contributed to extreme income disparity, which has led to a period of unprecedented displacement. In a move that came as a surprise to grassroots advocates who are used to sparring with billionaires, Salesforce CEO and San Francisco native Marc Benioff emerged as a vocal proponent and contributed his company’s resources to support Prop C. In a city full of tech wealth, he was the only CEO to back the effort. Benioff and Twitter/Square
OAKLAND’S SHARED MOBILITY PRINCIPLES

Oakland’s Department of Transportation has established guiding equity principles to ensure that shared mobility services like bike share, car share, and scooter share meet the needs of residents that are currently underserved by existing transportation. Find a preview below, and read them in full at oaklandca.gov/resources/shared-mobility-principles.

CEO Jack Dorsey got into a public debate about the initiative, with Dorsey accusing the initiative of being unfair to big businesses like his.

While Proposal C is a significant attempt to hold tech companies accountable, it will likely remain up to those outside the industry—policy makers, planners, and allied professionals—to manage their impact and innovations for the public interest.

Carla Mays founded the consulting firm #SMARTCOHORT to help city governments navigate urban design and civic tech with citizens and sustainability in mind. “We’ll never know what’s coming, but we have to deal with challenges like housing and transit and the ways they interact with the public sector,” says Mays, who is also the research and strategy director of the firm.

Mays has seen the failures of making choices that prioritize technology over people, to the detriment of the urban fabric. In a world where demographics are changing more rapidly than ever, city governments need to be responsive and forward-thinking; Mays frames this as the demands of the innovation cycle (which can often be six to 18 months, depending on the sector) versus long-term responsibility. #SMARTCOHORT uses an Ecodistrict Framework (a community development protocol that centers equity and sustainability) to evaluate the needs of the city, ensuring that technology investment doesn’t overshadow the actual needs of residents.

Juell Stewart is a city planner, policy researcher, and freelance writer based in San Francisco. She writes about the myriad ways technology shapes urban development, community engagement, and social participation at juellstewart.com.