The National Neighborhood Indicators Partnership (NNIP) is a network of organizations in three dozen cities across the nation. Local partners work to make data about neighborhoods more accessible and help local stakeholders apply data to tackle issues in their communities. Over the past three years, with the support of the John D. and Catherine T. MacArthur Foundation, the NNIP network explored how its partners related to the open data movement and the potential for the two communities to work more closely together in the future. The report *Putting Open Data to Work for Communities* documents the broader lessons from the project. This Partner's Perspective relates how the local NNIP partner, Urban Strategies Council, in Oakland, California engaged with the open data movement in their community. Based on the author's personal experiences as of June 2013, it presents a rich picture of the information environment and how it is shaped by the local institutional and political context. We hope it provides lessons and inspiration for other localities interested in using open data to improve their communities.

## CONTEXT FOR OPEN DATA

Oakland is a challenging city for the open data movement. It has a history of blocking access to public information and weak collaboration regarding data use for decisionmaking. Despite serious budget troubles, constant conflict with its police department and massive debt burdens that are not being paid down, Oakland has a reputation as one of the best cities in the world to visit and the best place for locating new tech companies. Between these divergent perceptions lie an established social activist and social justice community and a rich community-based-organization sector aimed at supporting the least fortunate in our society. The past decade has seen corruption scandals in city hall, disgraced administrators, part-time mayors, and departmental corruption that have eroded public trust in local government to record lows.

Oakland also suffers from what most modern American cities do—poor technology infrastructure. The systems in place in the city leave many departments with paper-based records processes, systems limited to basic reports, and no data access or export. In addition, very expensive and slow acquisition processes result in outdated, ill-suited technology as an end product. This reality remains at the source of much of Oakland's data woes and is the root of at least half of the problems with public access to data. The other half of the problem lies with the misperception of government as owner of government data, instead of as custodian.

The city has chosen to make data public in very small doses, often in clunky geographic information system (GIS) interfaces online, which severely limit access to actual data and instead provide just a visual snapshot of the data that cannot be reused easily. Public data have been provided as PDF and Excel documents on random Web pages with no formal home or one-stop shop to find city data. As a result, the data ecosystem has been very weak in Oakland and has been left to nongovernment organizations to provide.

Oakland lies within Alameda County and contains many other jurisdictions. As a result, many services are provided at a geographic level much broader than the city boundary. The county itself has taken a similar approach to the city when publishing open data over the past decades—limited functionality in Web-based GIS or over-the-counter data on CD-ROM from certain agencies such as the Assessor's Department. The county has been more aggressive in getting data portals online for certain agencies; however, many datasets contain very limited data fields, which heavily curtails the usefulness of these systems. For example, the Clerk Recorder (the place all foreclosures get filed) published data containing bank name, date, and property owner, omitting any address or city information because those data have not been digitized; they remain on the paper forms they were submitted on. As a result, that department cannot run a simple

query to provide data on the number of certain foreclosure types in a city or ZIP Code.

Both the City of Oakland and Alameda County have suffered from a perception of poor public transparency. Processes are criticized by the media and the public and decisions are often made with little or no community input.

## PROGESS IN OPEN DATA

Despite a lack of historic leadership from local government, local organizations, in particular the Urban Strategies Council, consistently supported data-driven decisionmaking and public access to information. One of the first six NNIP partners, the Urban Strategies Council was founded in 1987 by Angela Glover Blackwell as a social justice organization. The Council is now a social impact group with a focus on research, policy, innovation, and collaboration and maintains a commitment to equity in decisionmaking and outcomes for the community. The Council's research team has held the goal of democratizing data for almost two decades and has taken a multichannel approach to achieving this goal.

When they set out to rebuild their Web-mapping and data visualization platform, (http://infoalamedacounty.org) the Council knew that simply building a mapping tool was not sufficient to support the local data needs of community groups, developers, and researchers. They put a lot of effort into designing an interface that would allow users to download entire datasets; users can now download not just

raw data but geographic information as well. However, they realized that bundling a data portal with a mapping site would reduce the visibility of the data, resulting in far less use and impact; something more was needed.

Around this time, in early 2012, it was clear that Oakland had all the pieces lined up to support a strong civic innovation and data-driven ecosystem; what was missing was leadership from the city to support and leverage local resources. There had been a very successful community hack-a-thon called Code for Oakland, which catalyzed the local tech community to focus on local solutions. Also, a growing technology sector was forming a leadership body with 2.Oakland (formerly InnovateOakland). There were coworking spaces and startups in the city, yet still no tech vision or data flow from the city.

The Urban Strategies Council's research director spent time lobbying city council members and county supervisors for a formal open data policy in the city and county. Using local stories as well as repurposed guidelines and policy documentation from the Code for America Commons, they clearly laid out the benefits and opportunities inherent in opening public data. Several months later, a staff report was accepted by the city council, and the city set about identifying a provider to help them publish data easily. Likewise, the County Supervisors Board president ordered staff to proceed with establishing a public data system.

In mid-2012, Steve Spiker and Eddie Tejeda founded a civic innovation organization called OpenOakland, with the mission of supporting open, agile, and engaged government. Part of the Code for America Brigade network, this group of volunteer techs and advocates began building tools to help make the city more accessible and more engaged. In late 2012, they hosted the first-ever CityCamp Oakland and in 2013 will host the first city write-a-thon, called ReWrite Oakland. There is a clear and obvious symbiosis between traditional community data organizations like the Urban Strategies Council and new tech-focused groups such as Code for America.

To support Code for Oakland 2012, members of OpenOakland built an open data platform using the open source platform CKAN. The system was launched to support community events and local researchers, and now features more than 69 datasets. This platform was adopted by the Urban Strategies Council as a way to easily publish data for public consumption, providing reduced costs in data dissemination and easier data access for staff. In late 2012, OpenOakland proposed to make this platform available to the city at very low cost as an open data solution in an innovative public/private partnership model; however, the city chose to adopt a platform hosted by Socrata.

As of May 2013, both the City of Oakland and Alameda County are in unusual positions: Both have open data sites available and neither have followed through with legislation to sustain and

preserve these practices as policy. This is a situation unique to Oakland and New Orleans and it is particularly problematic. Should a senior official decide they do not like something that has been published, it can disappear; or should there be blowback from published information, the system could be shut down. This is a rare moment where city and county staff and elected leaders share the same goals and intent (related to open data), and so failing to capitalize on this alignment of staff and elected leaders is hard to understand.

There is a growing civic hacker community in Oakland and multiple organizations are beginning to capitalize on the new data resources. The county itself has sponsored two hack-a-thons focused on building apps to showcase or improve access to county services, and the City of Oakland supported a hack-a-thon with OpenOakland for International Open Data Day. OpenOakland now meets weekly at city hall, gathering an average of 25 people each week to work on data-driven technology projects focused on local problems and opportunities. TechLiminal hosts a weekly hack night and has been another valuable resource and meeting place for this community.

The city and county have published a variety of data to date, initially beginning with spatial data as low-hanging fruit; these are often maintained and have reliable metadata available. They are also of modest value and low controversy. Both data sites are being populated with more detailed, richer information from public works

agencies, restaurant health inspections, green energy generation, planning, and more. In the city, the effort is spearheaded by the Administrator's Office, with excellent public leadership from Nicole Neditch. At the county level, the Information Technology Department (ITD) leads the effort with support from the county administrator. Tim Dupuis (Interim ITD Director) and Theresa Rude (with the county administrator's office) have been instrumental in supporting open data across the county and beginning to publish new data very quickly. The city system went live in February 2013; the county site was live in September 2012.

Of note for other cities, the county system grew out of an internal process aimed at developing integrated data-sharing systems among county departments, something important yet very expensive and time consuming. At that table, the Urban Strategies Council advocated for a public-facing data system also, and pushed that this was an easier win and had multiple benefits, including making the county's own staff more aware of the data in different departments, even making data access possible that was previously near impossible. These proved to be significant motivating factors. Early wins matter in local government change initiatives.

## FUTURE DIRECTIONS

The move to open data is nothing but positive for the Urban Strategies Council. There have been immediate rewards, but the long-term gains will be more substantial. Two current

projects funded by the city and county have benefited from several new datasets being publicly available, thus reducing project time and costs substantially—saving the city and county money. Many datasets are becoming available, but the norm is still one of restricted, difficult to find and access data in almost every department. The open government movement is heading in a direction where the default is "open" and available. This brings with it a necessary shift in culture and attitude to truly realize the potential of open governments and free public data. There still must be strong local leadership inside government and in the advocacy community to ensure that default comes to pass. The Council will continue in this role, as will OpenOakland, Code for America, and the community organizing groups active in the city.

The Council's involvement in this effort has led to increased public visibility and increased awareness of its role in the local community. Their reputation is evolving from that of custodians (the "guys who keep all the data") to connectors—the place that helps to connect you to the data, people, or systems you seek. For Council staff, there is a valuable shift from spending time digging up data for new projects to instead having more bandwidth to do analysis and research with the data, an important shift in resource utilization. They will be further developing their role as a source of open data for the community, supporting local nonprofits, universities, governments, and private

organizations through releasing all non-restricted data by default. They have deepened relationships with local journalists who are increasingly data savvy but who still require local data and context experts to provide guidance and insight as well as new story ideas.

The Urban Strategies Council is reforming their research and technology work into a body of work that reflects its position in this new information age, one that demonstrates their leadership in this open data field and in their work to create a data-driven ecosystem in Oakland. Local funders are becoming interested in this work and are beginning to push for the philanthropic and nonprofit sectors to also begin publishing their data openly. Their main work to open data and advocate for this change remains largely unfunded, yet is central to their mission.

The Council's immediate work in Oakland is to advocate for the adoption of strong legislation to sustain open data, ideally tying this to efforts to require open standards in all data produced by contractors and vendors. The same is true in Alameda County. The Council will seek to be more of a platform for innovation and data use in decisionmaking by hosting local data dives and supporting open data events and awareness.

There is a need to develop strong, clear procedures in this new age of information access. With previously limited data now considered public, there is often a gray area

where government staff issue data to authorized research partners as public record, yet they still consider the data to be confidential. This creates opportunity for confusion and legal fallout should data be issued under incorrect terms. Licensing standards must be stressed to those responsible for managing data releases to avoid embarrassing and possibly criminal mistakes.

While many departments are publishing data in batches, often a month or a quarter at a time, there is a need to develop better data feeds to allow for more real-time access to many common data types. Along with the need to improve data flows, this opening of data constantly brings to light the poor condition of many public datasets, begging the question, "How are you doing your work properly with such poor data?" This question should be framed in a way that supports and encourages improvement, rather than as a legal threat. This is a monumental shift for government bureaucrats, and the community should be gently supportive of improvements before bringing negative pressure to affect change.

With many data being openly available, there is increasing pressure from some groups to gain access to other, perhaps more controversial, data that have not been published. This is a healthy progression and a natural one. Governments wish to begin opening easy, safe data, but soon face pressure to not stop there. This will test the true desire of government

leaders to support the move to open data. Again, this will be a breaking point unless practice is supported by strong legislation. Some local departments appear to have inadequate data collection and maintenance systems and thus will face pressure when the call comes to open their data, but a smart leader will see this as a chance to learn and to require positive change that benefits the department as well as the wider community.

Momentum can be strong and sustained if it is supported appropriately by senior officials. Chicago once again provides a great example of proactive leadership and this model is relevant for the Oakland and Alameda context. The value of open data to local industry and the tech sector and to attracting new businesses and investment is enormous, but realizing this potential requires investment. Appointing a chief data officer or chief technology/digital officer is key for bringing investment to this area and for seeing it succeed. Creating such positions will increase the value and return of open data to our city and also fill a sorely needed role for internal management and optimization of city data stores currently not well utilized. Data are a renewable, nonconsumable resource that our local governments must generate, yet as with any resource, leadership must recognize the strategic value of data in order realize the massive returns possible.

Steve Spiker is the Director of Research and Technology at the Urban Strategies Council and co-leads OpenOakland, the area's Code for America's brigade.