

OCTOBER 2011

# HEAR US NOW?

## A California Survey of Digital Technology's Role in Civic Engagement and Local Government

APRIL MANATT

WITH STEPHEN G. BLAKE, JOE MATHEWS & TROY K. SCHNEIDER



NEW AMERICA IN CALIFORNIA

NEW AMERICA FOUNDATION

---

This report, and the research informing it, were made possible by the generous support of the James Irvine Foundation and Stanford University's Bill Lane Center for the American West.



© 2011 New America Foundation

This report carries a Creative Commons license, which permits non-commercial re-use of New America content when proper attribution is provided. This means you are free to copy, display and distribute New America's work, or include our content in derivative works, under the following conditions:

- **Attribution.** You must clearly attribute the work to the New America Foundation, and provide a link back to [www.Newamerica.net](http://www.Newamerica.net).
- **Noncommercial.** You may not use this work for commercial purposes without explicit prior permission from New America.
- **Share Alike.** If you alter, transform, or build upon this work, you may distribute the resulting work only under a license identical to this one.

For the full legal code of this Creative Commons license, please visit [www.creativecommons.org](http://www.creativecommons.org). If you have any questions about citing or re-using New America content, please contact us.

## Hidden in all the bad news about California's troubles is this delightful paradox: Californians, while living in a state that experts say is ungovernable, have within their reach new tools that give them greater power to govern themselves than ever before.

Technology is the reason. Often with little public notice or scrutiny, most of California's 5,000-some local governments are experimenting with technologies to engage the public and improve services. The sophistication of this use of digital technologies for citizen interaction — referred to as eGovernment, digital government, or Government 2.0 — varies. The benefits are wide-ranging.

You can go on-line to have the city police in Santa Clarita check on your home while you're on vacation. In Pebble Beach, you can add yourself to the Community Services District's database of local people that need special assistance in the event of an emergency evacuation. You can schedule a visit to your cousin in jail via the Santa Clara County web site or public kiosks. If you need to appear in court or qualify yourself for social services in Nevada County, you can avoid long drives over windy, snowy roads by finding one of the 60 county video cameras set up for direct conferencing with local government. And if you're a truant in Anaheim, you can avoid school reassignment or prosecution by carrying a hand-held tracking device, provided by your school district and the city police, that monitors your location throughout the day.

The timing of eGovernment's rise is at once problematic — and fortunate. Public frustration with government and cuts in public spending are natural obstacles to launching new programs. But the same factors also create an opportunity to redesign how government interacts with, and services, the public. Technology, if deployed wisely and efficiently, may provide better engagement, better information and better service delivery, at less of a price.

How is California doing so far at this task? The early results are uneven. California's powerful culture of innovation has produced clear progress from the days of simple government web sites. But the progress has been unevenly distributed. And success stories have yet to be identified, much less encouraged and disseminated. When it comes to eGovernment, Californians don't know what other California are doing, don't know what works, and don't know how to measure success.

Californians deserve — and should demand — a basic level of technology-driven service and engagement, just as they do with analog government services such as emergency response and sanitation.

This report provides a starting point for moving the state in that direction, by documenting some of many innovations already underway, and charting where California could go in the future.

It focuses on California's local governments, because they provide most services and are the level of government with which most Californians most often engage. As importantly, local governments are responding to that heightened engagement, and heightened expectations, with experiments in technology that are both more expansive and citizen-focused than those that states and countries generally have undertaken. Thus, the search for promising practices that have the potential to transform the citizen-government relationship starts locally, and the innovations we find there can be expanded to serve broader populations tomorrow.

The first section of the report offers a broad overview, with examples, of the different ways that California's local government use digital technologies to promote civic engagement and provide service improvements. Among the four most common uses of such technologies are:

- Engaging people via social media for robust, real-time and two-way information sharing, which can include mobile applications that let the public access local government and its services any time of day or night and also “on the go;”
- Utilizing geographic information systems (GIS) to empower government and residents to understand and impact their physical, political and service environment;
- Employing wireless data and communications technology to improve staff-to-staff and staff-to-public contact and conquer challenges posed by the climate and topographical features of certain regions; or

- Using participatory democracy projects and open data sets that allow private citizens to bring their wisdom and ideas to bear on identifying and solving fiscal and societal challenges.

In its second section, the paper provides a matrix of 40 different local government technology projects across the state. Included are organizations and websites with additional information about best practices, awards and resources relating to local technology usage.

In conclusion, the paper poses questions about how to design an eGovernment standard for California governments. It offers a path for future research, discussion and analysis on the subject. ❖

## I. Local Technology Tiers: 3 Levels of Innovation and Intensity

Local agency digital technology efforts differ in their aim, intensity, scope and degree of innovation. To help organize and differentiate between the myriad of local technology initiatives, this report categorizes them into three separate tiers, based on the impact they have — or can have — on the public:

- **Information and Service (Tier 1).** This includes efforts to provide basic information and service access. In some cases, local governments have evolved their baseline information and service functions to include interactive features and mobile access.
- **Service and Engagement (Tier 2).** This encompasses tools designed for more profound civic involvement and significant service enhancements.
- **Democratization and Empowerment (Tier 3).** This includes cutting-edge initiatives for democratization, civic empowerment and community change.

### Tier 1 Technology Uses: Basic Information and Service Access

Tier 1 technology initiatives encompass digital access to basic public information (such as departmental contact numbers, meeting agendas and watering schedules) or web-based access to services (such as the ability to download a permit application, report a service outage, or request a book from the library).

These projects and processes allow governments to give and, in some cases, receive information with varying

degrees of detail and interactivity. Some local agencies employ modern tools, such as social media, smartphone applications and Geographic Information Systems (mapping) to provide public access to their local information and activities at any time and from virtually any location. The following are examples of Tier 1 technology uses:

#### Web Portals

All California counties and all but one dozen cities report having a web portal for their agency.<sup>1</sup> The most rudimentary local government websites list agency departments and phone numbers, include photos, and provide links to other entities, such as the state government or local chambers of commerce.

Amador City (population 185, Amador County) has a basic website, accessed via a tourism-focused portal sponsored in part by the Merchant’s Association. The city website identifies elected officials, provides phone numbers for city departments, shows an aerial photo of the street rehabilitation plan, and allows users to download the city’s municipal code, council meeting agendas and minutes.<sup>2</sup> The city of Weed (population 2,900, Siskiyou County) has a similar web site that includes each department’s mission statement and service levels, a weekly city administrator’s report, and the council’s stated adopted priorities. Visitors to the site can answer an online questionnaire relating to the county’s hazard mitigation plan.<sup>3</sup>

Larger and wealthier agencies have more sophisticated websites. Users of the City of Santa Clarita (population 176,000, Los Angeles County) can, at any time day or night:

- Sign up for “eNotifications” relating to 30 topics of interest in four categories (arts and events, general interest, parks and recreation, special interest);
- Create an account to register for city classes and activities;
- Access the monthly city newsletter with news stories, video clips and updates on city projects;
- Apply for and submit permits online;
- Register for emergency notifications;
- Ask the Sheriff’s Office to check on their houses during a vacation;
- See who is registered to lobby at City Hall; and
- Learn how the city is spending its federal funds.<sup>4</sup>

Similarly, users of Alameda County’s website can view and

pay property taxes, parking tickets, or other bills; learn background and up-to-date information about the city's redistricting exercise; watch live broadcasts of the Board of Supervisors' meetings; locate community-based services by address or area; search an online database of fictitious business licenses; and access the county's Twitter, Facebook and YouTube accounts.<sup>5</sup>

### *Social Media*

According to the League of California Cities, 124 cities have a presence on Facebook and 140 utilize Twitter. The League of Cities suggests that its municipalities use social networking sites to send out notifications and information; join relevant online groups; post links to articles, photos and videos; monitor what people are saying about the city; discover breaking news, learn more about people and activities of interest; and ask and answer questions.<sup>6</sup> Similarly, the public can follow local agencies, share their experiences, make suggestions, ask questions, express opinions and share photos and videos.

Cities, counties and large special districts and school districts use social media for these purposes, creating opportunities for interactivity and two-way communications between local agencies and the public.<sup>7</sup> One social media user, the Port of Long Beach (Los Angeles County), employs Facebook to encourage residents to share oral histories and photos of their lives in and around the Port as part of the Agency's centennial celebration.<sup>8</sup> The City of El Cerrito uses Twitter to follow other groups that are relevant to the city, including the state and local news sources.<sup>9</sup> Social media allows local agencies to provide and receive information in real time and in a helpful and fun manner. Social media interactions can help the public feel more informed and connected with their community, which may increase the likelihood of their involvement in civic conversations and activities.

### *Interactive and Mobile Delivery Models*

Some local governments employ modern, interactive tools: digital polling and surveys, smartphone applications that permit mobile access to government, and Geographic Information Systems (GIS) that provide databases, updates, and archives that the public can access to learn about zoning, property values, land development projects and other topics affecting their neighborhoods.<sup>10</sup>

Many local agencies allow residents to custom-tailor the information and services they want to receive from their

local agency. Constituents of the Martinez Unified School District (Contra Costa County) can subscribe to podcasts and Internet audio reports from the District Superintendent.<sup>11</sup> On the City of Berkeley (Alameda County) website, residents can choose not to receive unwanted catalogs and advertisements in the mail.<sup>12</sup>

All but a handful of counties utilize GIS maps for location-based information, data and services. Yuba County's GIS portal works with the county's permit tracking system to allow users to search permits by location. The site also allows users to see aerial photos of county facilities and check topographical maps of different areas.<sup>13</sup> Marin County's GIS site allows users to access census tract information, locate special district boundary lines, review supervisorial district maps and find flood control zones.<sup>14</sup>

Local governments are embracing smartphone mobile applications to increase access, convenience and accountability. For example, the City of Santa Cruz (Santa Cruz County) allows users to download an iPhone application that allows them to report crime alerts from their mobile phone.<sup>15</sup> In the City of Anaheim (Orange County), users can download the "My Anaheim" application for iPhone and Android phones and learn about events, send comments to City Hall, and request services such as graffiti and shopping cart removal.<sup>16</sup> As more citizens embrace smartphone technology, mobile phone applications make accessing local government information more user-friendly by making it available round the clock and "on the go." It also helps local agencies increase efficiency, by automatically routing citizens to the right department, and accountability, by acknowledging service requests and reporting on their disposition. Officials in the City and County of San Francisco are exploring taking these functions to the next step: developing applications that would bypass administrators and forward citizens' requests for services directly to the appropriate service crews.

Beyond providing tailored, searchable and interactive information sources to their constituents, local governments are also looking to online survey and polling tools for guidance and feedback from their citizens on local policies and choices. In 2006, the Oakland Unified School District (Alameda County) launched an annual, online and in-person "Use Your Voice" survey to measure the District's performance and create scorecards in ten areas, including safety, academic rigor and parent engagement. The District receives tens of thousands of responses and

uses the feedback to guide budgeting and decision-making.<sup>18</sup> The City of San Diego (San Diego County) is using an online survey tool to get residents' feedback about a proposed redesign of its water and sewer bills.<sup>19</sup> Online survey tools allow local agencies to better understand community concerns and preferences and give residents an opportunity to provide guidance and feedback to policy makers.

These and other Tier 1 tools for basic services and information are both common and proven. As a result, it is appropriate to say that, in 2011, this level of service should be the baseline standard for California's local governments.

### Tier 2 Technology Uses: Intensified Engagement and Impactful Service Improvements

Tier 2 technology uses go beyond basic information exchange or service access to encompass more profound civic involvement and pronounced service enhancements. In local government, Tier 2 civic engagement practices focus on developing a relationship or partnership with the public, providing citizens with a deeper understand-

ing of public endeavors, or allowing community members to participate in the operations, planning and monitoring of government activities. Tier 2 technology allows local agencies to reshape service delivery by ceding operations to digital management and providing levels of precision or comprehensiveness that have not been possible prior to the invention of the technology solution. The following are examples of Tier 2 technology uses:

#### *Electronic Monitoring and Management*

Using GPS (global positioning system) technology and wireless telemetry, some local agencies are taking advantage of real-time, high-tech monitoring and communications, to guide at-risk youth, save lives and preserve precious resources. The Anaheim Union High School District (Orange County) partners with city police to employ GPS to track chronically truant 7th and 8th grade students. To avoid school reassignment or prosecution, students with four or more unexcused absences can volunteer to carry a hand-held tracking device that monitors their location multiple times throughout the day. (A similar experiment in San

### Technology Spotlight: "Go Long Beach" Smartphone Application

*"This tool literally puts local government in the hands of the community at any time of day or night, 24/7, and it will help enhance our residents' connection and interaction with their city."<sup>17</sup>*

— Long Beach Mayor Bob Foster

The City of Long Beach (Los Angeles County) is using modern technology to tackle age-old city problems, such as graffiti and potholes. In October 2010, the city launched its Go Long Beach mobile phone application for the iPhone. The free application, now also available for Android phones, allows users to report broken sidewalks, potholes, missing street signs, graffiti, illegal dumping, barking dogs, dead animals and overgrown weeds.

The application allows users to send a message to city staff or snap a location-tagged photo that is automatically routed to the appropriate department for corrective action. Users get a digital confirmation that their request has been received and an estimate of the time period for addressing the issue. Once city staffers have taken action, users receive a notification that the problem has been corrected.

City residents made over 800 service requests in the first three months of its availability and 4,500 to date. Prior to the city's adoption of the mobile application, residents had to guess which department might handle their issue, look up contact information, or ask city staff for advice about their inquiry. Now, contact is quick and convenient for users, and more efficient for city staff members, who can spend less time routing calls and more time responding to community problems. Moreover, the built-in feedback loop enhances customer confidence and city accountability.

Beginning this year, the city plans to document annual usage of the application. Long Beach hopes to include additional services within the application in the future.

Antonio, Texas in 2008 resulted in a 97% rate of return to the classroom.<sup>20</sup>) When students are in class, the school will receive additional revenues and law enforcement can see reduced costs for prosecution and criminal behavior.<sup>21</sup>

The Santa Clara County Search and Rescue Company uses GPS to serve a different constituency. The county's Project Lifesaver offers a tracking bracelet to residents who are prone to wandering off dangerously, including people with Alzheimer's disease and Down's Syndrome. The bracelets are free to the Sheriff and to users, but recipients pay \$25 per month for location monitoring. If a person with the bracelet wanders away, a call to 911 and EmFinders (the bracelet's manufacturer) generally results in the person's location within 30 minutes.<sup>22</sup>

Emergency service enhancements can be made with simpler technologies, as well. Residents of the Pebble Beach Community Services District (Monterey County) can choose to be included in a District-created database of local people that need special assistance in the event of an emergency evacuation.<sup>25</sup>

In Riverside County, the Rancho California Water District utilizes wireless telemetry to ensure maximum watering efficiency and crop yields on local farms. Five telemetry sites collect soil moisture and salinity data, and one operates as a weather station, calculating temperature, humidity, solar radiation and other information. Collected data is relayed to a server that allows avocado and wine grape farmers to access the information over the Internet and via mobile phones.<sup>26</sup> Weather data is made available throughout the larger community. The District is hoping the new project will allow farmers to make more efficient watering decisions and promote better crop yields. The District will evaluate project outcomes by 2014, after it has obtained water usage and crop yield data from several cycles.<sup>27</sup>

### *Workforce and Service Delivery Efficiencies*

Faced with distant population centers and rugged, often-snow covered terrain, Nevada County (which covers 974 square miles) has turned to video conferencing for service intake and court functions. Rather than require staff and potential service recipients to make a long, difficult, polluting and risky drives to transact county business, the county has set up video

## **Innovation Spotlight: San Ramon Valley Fire Protection District CPR Application**

*"We're crowdsourcing good Samaritans"*

— *Richard Price, Fire Chief*

The San Ramon Valley Fire Protection District (Contra Costa County) is combining GPS with a smartphone application to save lives in emergency situations. Launched in 2011, the Fire Department mobile iPhone application allows people certified in CPR (cardiopulmonary resuscitation) to volunteer to be alerted if someone nearby appears to be having a cardiac event and may need help. Once notified of the emergency and the location, registered users can find the victim and administer CPR (or locate the nearest public defibrillator, as directed by the app), saving precious minutes before public safety personnel can respond. San Ramon Fire Chief Richard Price was inspired to create the application after hearing an emergency vehicle approaching a deli where he was having lunch. After parking in the restaurant's lot, the emergency crew proceeded next door to respond to a cardiac emergency — a lifesaving service that the Chief and others could have easily and quickly provided had they only known of the emergency and its proximity. The idea for the application was born that afternoon, and preliminary plans were drawn up on a deli napkin.<sup>23</sup> The mobile application "crowdsources" life saving services by using volunteers from throughout the community to help respond to critical cardiac events. After a multi-pronged public launch of the application, including use of social media, moving public service announcements, and outreach to community groups and stakeholders, approximately 40,000 users within the District's boundaries have downloaded the application. Due to state, national and international demand for the technology, the Fire District has set up a non-profit foundation, PulsePoint, to assist in the dissemination of the technology to 125 other public agencies across the globe that would like to replicate it in their communities. In the future, a similar crowdsourcing application could be employed for Amber alerts, filling sandbags during a flood, or staffing emergency shelters in times of crisis.<sup>24</sup>

cameras at 60 different locations. Via video, caseworkers may interview residents and qualify them for social or health services, county staff may provide expertise relating to planning or building permits, and county child support attorneys may “appear” in court from remote locations.

Video conferencing has allowed the county to expedite health care coverage, sparing both clinics and clients unnecessary medical costs. The number of workers needed to run county child support functions has been reduced from five attorneys and nine clerical staff to two attorneys and three clerical staff. In the near future, the county will phase out its proprietary video technology and rely instead on Internet-based Skype. Using Skype will further reduce the costs of virtual appearances and will allow access from additional locations, including laptops, mobile phones and other areas with wireless Internet connections. County supervisors plan to adopt this technology for broadcasting their meetings and allowing public comment.

Santa Clara County, meanwhile, allows the public to register and schedule visits with jail inmates through a secure

Internet website accessed through the county’s website or via public kiosks. This technology-enhanced solution is a dramatic improvement over the prior system, which required potential visitors to telephone county corrections staff for approval and scheduling — a time-consuming and labor-intensive process — or to travel to the jail site and line up in the early morning hours with no guarantee that a visitation spot would be available. Now, with the help of the online process, users can self-schedule their visits weeks in advance. Automatic updates confirm appointment times and update users of any status changes.

The new process saves significant staff time and cost related to scheduling, and provides greater efficiency and certainty for visitors. More than half of all jail visitors now use the automated system. The county now can process requests twice as quickly and has been able to expand the total number of jail visitation days from weekends only to six days per week.<sup>28</sup>

### *Holistic Engagement and Education*

High-tech, holistic engagement and education initiatives

## **Technology Spotlight: City of Palo Alto See-It Site**

*“We’re opening the doors to City Hall.”*

— Greg Hermann, former staff, City of Palo Alto

Each year, the City Council of Palo Alto (Santa Clara County) adopts a set of city priorities. In the past, progress on these priorities were tracked via a spreadsheet and communicated with the council and the public twice a year. In 2009, the council turned to technology to increase the transparency and accessibility of its council priority progress reports, with staff developing a web-based tool for uninterrupted tracking of progress on Council priorities.

Today, the city’s highly detailed and interactive See-It Site allows users to immerse themselves in the City Council’s top priorities for 2011: environmental sustainability, land use and transportation, and community collaboration for youth well being. The site includes 18 strategies, 82 actions, and related scorecards with detailed information and quantitative measurements of progress toward the goals. Using simple color-coded indicators, the site indicates whether priorities, strategies and activities show “Strong Progress Achieved,” “Moderate Progress Achieved,” or “Progress Needed.” The site allows users to access supporting and background information relating to the different priorities and to provide feedback on goals and progress.

The city launched its See-It Site with a public kick-off event; computers and staff were available so that residents could learn about and access the new tool. The site quickly became one of the two most frequently visited sites on the city’s web portal. The See-It Site continues to provide transparency and accountability for the City Council and helps city staff engage in performance management. The visual and highly interactive tool also helps more deeply engage the community in the activities, progress and future of their city.<sup>30</sup>



envelop users in an information-rich, graphically immersive and interactive manner.

Bay Bridge 360 by the Metropolitan Transportation Commission in San Francisco provides vast visual, video, real-time and highly detailed information regarding the seismic reconstruction of the San Francisco-Oakland Bay Bridge. Site users can view real-time camera feeds of construction progress, animated simulations of construction steps, videos about the technology involved; or get statistics, facts or historical information. This immersive audio/visual experience takes routine governmental information sharing to a more holistic and meaningful level.<sup>29</sup>

### Tier 3 Technology Uses: Transformation, Democratization and Empowerment.

Some forward-thinking government, nonprofit, and private sector visionaries see a future where technology is used to recast government as one of many platforms for solving problems. This worldview incorporates the ideas of “Government 2.0” and “crowdsourcing,” concepts that envision citizens and the public more fundamentally steering and defining the process of governance and providing solutions to community problems.

This is the Tier 3 of eGovernment — comprehensive, democratic initiatives on information sharing, community action, or service provision. Technologies are used to encourage citizens to work with public data, define problems and select and provide solutions. Important principles of Tier 3 technologies are transparency, accountability and democracy. Ideally, the technologies employed within this Tier are “open source” — freely shared and available to all, unhindered by proprietary, copyright, or other legal constraints. The following are examples of Tier 3 technology uses:

#### *Online Citizen Suggestion Boxes and Participatory Democracy*

Even before the rise of the Internet, the use of participatory democracy, particularly in matters of budgeting, was growing worldwide. Participatory budgeting regimes differ from place to place, but generally ask residents to set public spending priorities via small and large group meetings, on-line information sharing and deliberations, and popular votes. The modern process was first used in Porto Alegre, Brazil, to determine the budget for local construction and services. Some 50,000 citizens in a city of 1.5 mil-

lion now participate in a process that divides up \$200 million each year.

Participatory budgeting arrived in America in the city of Chicago three years ago, where an Alderman gave residents of his ward the authority to spend \$1.3 million in city funds on infrastructure projects. The annual experiment starts with a meeting of residents and community organizations, who divide into committees and spend months meeting with experts, setting priorities and developing proposals for the money. In the end, all residents 16 and older, regardless of immigration status, were invited to a high school and permitted to vote on the specific budget proposals. The 14 most popular of the 36 projects on the ballot were approved.

After the first project was complete, voter participation in the ward — which had been stable for decades — increased by 6%. The Alderman’s winning margin in the next election increased by 42%. Twelve other wards now are considering similar experiments.

Participatory budgeting shows great promise for transforming the relationship between citizens and their government. Studies of the process and others have found that participatory budgeting results in greater transparency and accountability; higher public participation; community concurrence on social priorities; increased trust between government and the population; more equitable distribution of resources; and a higher quality of life via improved public services.

Participatory budgeting also has lasting impacts on civic engagement. One study, in assessing 55 indicators of education and involvement, found participants to have greater citizenship skills, increased knowledge, and improved education.<sup>31</sup> Another cited high participation by underrepresented populations and an increase in the number of civic organizations in communities that used the process.<sup>32</sup> A review of the Chicago process found that participants challenged city departments to be more efficient; leveraged program funds to secure matching funding; and promoted volunteerism in other arenas.

Some California local governments have used technology in participatory budgeting initiatives. Instead of leaving budget decisions to elected and appointed policy makers, the public is asked to identify problems and propose and

adopt solutions, often via “ideation platforms” (online suggestion boxes) and in-person or Internet voting processes.

In 2010, San Francisco faced a \$522 million budget deficit. Then-Mayor Gavin Newsom started an online suggestion box (ImproveSF.org) and solicited city workers for their best ideas about how to save money and more efficiently provide services. A review panel comprised of senior city staff reviewed the hundreds of submissions. Several of the suggestions were adopted and were estimated to save the city hundreds of thousands of dollars annually.<sup>33</sup>

In 2010, the County of San Mateo faced a multimillion-dollar budget deficit and asked its staff and citizens for their ideas on how to decrease costs, increase revenues, or improve pro-

ductivity. On an Internet platform, staff and the public submitted ideas, commented on other suggestions and voted for their top solutions. At the end of the project, the website generated 178 ideas, 264 comments and 5,352 votes. Winning ideas, including suggestions on saving money on printing by changing the county’s default printing font and through countywide absentee-only voting, which ended up saving the county over \$700,000, were adopted. Other ideas, including requiring “green” audits to capture energy savings, handling county invoices electronically, and raising the fee for copying county public records, are under review.<sup>34</sup>

In addition to local agency-led efforts, some news organizations are using ideation platforms and participatory democracy to seek citizen solutions. In April 2011, Noozhawk, an

### Technology Spotlight: City of Santa Cruz Budget Challenge

*“We placed our faith in the technology as well as our community and... our faith in the community was validated day in and day out with this site.”<sup>35</sup>*

— Peter Koht, City of Santa Cruz

In 2009, the City of Santa Cruz faced a \$9 million General Fund budget deficit. The size and chronic nature of the shortfall motivated city staff to reach out to their community in new ways – both to express the complexity and severity of the potential impacts and to seek new solutions.

The city, short of money, relied upon existing resources and staff, as well as community volunteers, to devise a technology project that would tell its story and elicit community input. Via a hosted feedback forum on the Internet, the city launched a website that provided background and contextual information on the budget problem, including issue primers, financial documents and a blog with updates on state budget activities. Citizens were invited to register on the site with their email address, educate themselves on the fiscal challenges, and propose solutions for raising revenues or cutting costs. To reduce time spent on outlier responses, users were required to keep the conversation focused on specific topics. Online suggestions generated a response from the city and were voted on by other users. The top ten suggestions were used by the city to guide budget strategies.<sup>36</sup>

City staff says the technology-enhanced civic engagement project reached more constituents than traditional town meetings and newspaper articles, and allowed the city to benefit from the community’s insights and creativity. The public “bought in” to proposed solutions because they had originated with the public. The mayor, city manager and city staff supported the project. By the end of the experiment, the site generated over 200 suggestions, a couple thousand individual votes, and more than 2,000 views. The outcomes from the project included not only suggestions to solve the one-year budget gap but also initiated discussions involving more fundamental aspects of the city’s future and overall priorities, including seeking economies-of-scale within the city and through joint city-county services, restructuring the city’s tax base, generating private and non-profit donations, employee pay cuts, contracting-out services to the private sector, and instituting more online services.<sup>37</sup> Since the close of the project, the city has consolidated departments, obtained private funding for certain projects, bargained for employee compensation concessions, implemented more online services, and launched a process for internal efficiency reviews.<sup>38</sup>

online newspaper serving the residents of Santa Barbara and Goleta (Santa Barbara County), launched its Santa Barbara Budget Challenge with the cooperation of city officials. The paper produced 22 stories over the course of 11 days focusing on different aspects of the city's financial situation, including revenues, regulations and costs. After providing context for the city's budget choices, readers were allowed to log onto an Internet site to suggest, discuss and vote on solutions. The project, now completed, generated top vote-getting ideas that included pension reform, increasing tourist taxes and contracting out services.<sup>39</sup>

Beyond solving budget shortfalls, participatory democracy can be used to identify and address larger societal challenges and opportunities. In the near future, the City and County of San Francisco will dramatically recast the online employee suggestion box it launched in 2010, ImproveSF (see above), as a community-wide experiment to allow the public to create and implement their own solutions for regional concerns. Users will be able to provide new insights and creativity to environmental, economic and other challenges facing the Bay Area. The top ideas submitted to the suggestion box will be paired with funding sources, and non-profit organizations will help guide suggested solutions through implementation.

### Open Data

Some local governments are providing data to the public — about finances, crime reports, public transit schedules and more — with the goal of tapping the problem-solving capacity and skills of local citizens. This “open data” approach is steps beyond the previous practice of offering only limited access to a handful of public data sets, or posting them in specific (and often unusable) formats. Instead, local agencies are providing vast quantities of public data in machine-readable formats so that individuals and organizations may access the data and design applications to improve their understanding and interactions with their community. Yuba and Marin Counties, for example, both provide detailed GIS data that can be used to map special district boundary lines, polling places, building permits and more.

To date, open data efforts have been dominated by state- and federal-level information, but local governments from San Francisco to Washington, D.C. are increasingly emerging as the new leaders — both in the data provided and the uses of it that they encourage. County- and municipal-level data are often more useful to average citizens, and are sparking active citizen involvement in ways that census data or federal campaign finance reports simply cannot. ❏

## Technology Spotlight: DataSF – San Francisco Public Data Clearinghouse and Apps Showcase

*“The idea behind the site is to open up San Francisco government and tap into the creative expertise of our greatest resource — our residents.”<sup>40</sup>*

— Gavin Newsom, Former Mayor of San Francisco

In 2009, San Francisco launched DataSF, a central Internet clearinghouse of statistical data collected by the city. The site currently contains 191 data sets from 28 agencies, including graffiti abatement requests, building permits filed, public safety caseload complaints by age, applications for food stamps and other statistics. Site users can search for specific data sets, publicly comment on and rate the information electronically, suggest the addition of other statistical information, and subscribe to certain types of information and updates.

The machine-readable format of the site's data permits users to download, display, analyze and interact with the information easily. It also allows for the creation and use of applications that can turn the data sets into valuable tools to pinpoint community problems. Citizens can use this data to identify a crime spot that has escaped attention, or find ways to make recycling centers more efficient, or reduce transit wait times.

DataSF democratizes public information by putting it into the hands of the people and helps increase transparency and accountability for the city. The site's application showcases crowdsourcing creativity and puts data to work for city residents.

## II. A Survey of Local Government Technology Initiatives

The following matrix identifies a variety of different local government technology initiatives, experiments and

applications, including the type of technology employed, a description of the project and a link for seeking additional information. Specially recognized and award-winning efforts are identified via annotation in the endnotes.

Item #	Entity	Initiative/Technology	Description	Additional Information
1	Alameda	County website <sup>41</sup>	Website allows the public to subscribe to information; access the county's Twitter, Facebook and YouTube accounts; utilize online payment options; see the county's Strategic Vision document; and download popular forms.	<a href="http://www.acgov.org/">http://www.acgov.org/</a>
2	Anaheim	3-1-1 Anaheim Anytime; Twitter access to smart-phone application	Access to the city's Twitter account allows the public to ask questions or make requests of city departments and provides central tracking of requests and responses.	<a href="http://www.anaheim.net/articlenew23.asp?id=4091">http://www.anaheim.net/articlenew23.asp?id=4091</a>
3	Anaheim	Subscribe to e-info; city web portal	Allows the public to check a virtual form to subscribe to information alerts and updates on topics including city requests for proposals, activities and programs, city news, police press releases and City Council agendas.	<a href="http://user.govoutreach.com/anaheim/subscribe.php">http://user.govoutreach.com/anaheim/subscribe.php</a>
4	Anaheim Union High School District	GPS tracking technology	Allows monitoring of chronically truant students via a dedicated handheld GPS device that requires check-in at pre-set intervals several times a day.	<a href="http://www.auhsd.k12.ca.us/default.aspx?rn=4915957">http://www.auhsd.k12.ca.us/default.aspx?rn=4915957</a>
5	Bay Bridge Public Information Office	<a href="http://baybridge360.com">baybridge360.com</a> 3-D mapping and information <sup>42</sup>	Detailed and highly interactive map and information relating to the history, impacts, detours, and real-time status and photos of the Bay Bridge reconstruction.	<a href="http://bay-bridgeinfo.org/">http://bay-bridgeinfo.org/</a> <a href="http://bay-bridge360.org/">http://bay-bridge360.org/</a>
6	Belvedere (city)	City Manager's blog; web portal	Allows the public to read about city issues, projects, meetings, and events; provides a forum for tutorials and primers on larger issues, such as historical context for local finance.	<a href="http://blog.cityof-belvedere.org/">http://blog.cityof-belvedere.org/</a>
7	Berkeley	Catalog Choice: city web portal with link to online application	Allows residents to opt out of mail delivery of unwanted catalogues, advertisement mail pieces, and phone books.	<a href="https://berkeley.catalogchoice.org/(510)981-7270">https://berkeley.catalogchoice.org/(510)981-7270</a>
8	Butte County	County web portal	Live streaming of county supervisor meetings over the county website.	<a href="http://www.chicoer.com/news/ci_17624289">http://www.chicoer.com/news/ci_17624289</a>

Item #	Entity	Initiative/Technology	Description	Additional Information
9	Lompoc	City website and TAP TV incorporated into City Handbook	Council adopted a policy to transmit all Council meetings and workshops live on the city website and the Lompoc Community Television Station and the place draft council agendas online within two weeks.	<a href="http://www1.cityoflompoc.com/councilagenda/2010/101228/101228minutes.pdf">http://www1.cityoflompoc.com/councilagenda/2010/101228/101228minutes.pdf</a>
10	Long Beach	Go Long Beach; Smartphone application	Allows users to report potholes, graffiti, sidewalk damage, and other service needs to the city, including photos and GPS coordinates. The technology forwards the service requests directly to the appropriate work crews.	<a href="http://www.everythinglongbeach.com/go-long-beach-iphone-app-released/">http://www.everythinglongbeach.com/go-long-beach-iphone-app-released/</a>
11	Martinez Unified School District	Superintendent Podcasts	Users can subscribe to podcasts, watch in QuickTime for Windows Media or listen with audio only; used as a way of sending out messages on a variety of topics — including a bond measure.	<a href="http://www.martinez.k12.ca.us/departments/superintendent">http://www.martinez.k12.ca.us/departments/superintendent</a>
12	Morgan Hill	Podcasts; Digital audio and video clips accessible by smartphones and computers	Archived podcasts include State of the City Address, Current Budget Challenges: Downtown Update, Status of Recent Police Activity, Election Results, and Economic Development.	<a href="http://www.morganhill.ca.gov/index.aspx?NID=757">http://www.morganhill.ca.gov/index.aspx?NID=757</a>
13	Mount Diablo Unified School District	School District Blog	Used for comments and feedback on district issues; includes online survey feature. People can subscribe by e-mail.	<a href="http://mdusd.blogspot.com/">http://mdusd.blogspot.com/</a>
14	Nevada County, with First 5, the United Way, and Helpline	Dial211.com; Web access to 1000 agencies and 1350 program in the Sierra-Nevada region <sup>43</sup>	Online community resource directory of services and resources provided by cities, county, state, non-profit and for-profit entities in the region, including disaster, criminal justice, employment, mental health, and other services.	<a href="http://www.dial211.com/">http://www.dial211.com/</a>
15	Nevada County	Video Eligibility; video conferencing system to determine service eligibility	Allows county eligibility, employment, and training staff to conduct interactive interviews with potential clients to determine eligibility for drug, mental health, job training, and other programs; permits remote court appearances by county staff.	<a href="http://www.csac.counties.org/default.asp?id=2436">http://www.csac.counties.org/default.asp?id=2436</a>
16	Oakland	Our Oakland; web application	Allows users to locate city services, such as libraries, neighborhood watch, and parks via interactive digital map.	<a href="http://gismaps.oaklandnet.com/ouroakland/index2.aspx">http://gismaps.oaklandnet.com/ouroakland/index2.aspx</a>

Item #	Entity	Initiative/Technology	Description	Additional Information
17	Oakland Unified School District	Use Your Voice Survey; Online Survey	A yearly public opinion survey open to the community that can be taken online.	<a href="http://public-portal.ousd.k12.ca.us/199410814164823540/site/default.asp">http://public-portal.ousd.k12.ca.us/199410814164823540/site/default.asp</a>
18	Palo Alto	Palo Alto See-It Site; Software	Allows the public to see, track, and report on the city's progress toward the city council top priorities each year, including content, data, and graphics. Extensive, interactive menu with general goals and specific actions taken to date.	<a href="http://public-portal.ousd.k12.ca.us/199410814164823540/site/default.asp">http://public-portal.ousd.k12.ca.us/199410814164823540/site/default.asp</a>
19	Pebble Beach Community Services District	Reverse 9-1-1; Automated community information system using GIS for rapid information dissemination	Allows the district to develop lists ahead of time (such as people who need assistance with evacuation) or in real time, via GIS, to communicate via phone, cell phone, and email and allows resident to communicate back via touch-tone responses.	<a href="http://www.pbcasd.org/">http://www.pbcasd.org/</a>
20	Placer County	Wireless digital communication system <sup>44</sup>	Allows law enforcement agencies to communicate effectively during emergencies, such as major crimes, hostage situations, and hazardous material spills and natural disasters, including areas where the county's topography prevents radio waves.	<a href="http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&amp;article_id=1515&amp;issue_id=62008">http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display_arch&amp;article_id=1515&amp;issue_id=62008</a>
21	Port of Long Beach	Facebook, blog	Interactive use of social media and blog for exchanging information, opinions, photos, and videos between the public and the Port.	<a href="http://www.facebook.com/PortofLB">http://www.facebook.com/PortofLB</a>
22	Poway Unified School District	Parent and student communication portal	Allows parents and students from all secondary schools to log in to access grades, assignments, teacher notes and other items important to the students' education.	<a href="http://www.facebook.com/PortofLB">http://www.facebook.com/PortofLB</a>
23	Rancho California Water District	Agricultural Wireless Telemetry for Irrigation Efficiency Pilot Project; Wireless telemetry systems	Helps customers make more precise and efficient use of water resources by collecting and communicating (via radio relay) information on crops using telemetry systems to gather soil moisture, salinity, and weather data; makes data available to growers on the Internet, allowing access to the information from remote locations.	District press release: Meggan Valencia 951-296-6922 (office)

Item #	Entity	Initiative/Technology	Description	Additional Information
24	Riverside	Greenriverside.com	Information clearinghouse for practices that can help make Riverside more environmentally friendly via support of renewable energy, less polluting power, and sustainable living practice, and includes tracking and quantifying related cost savings and environmental benefits in real-time.	<a href="http://www.riversideca.gov/utilities/comm-gp.asp">http://www.riversideca.gov/utilities/comm-gp.asp</a> (951) 782-0330
25	Sacramento Public Library	E-Readers @ Your Library; Nook eReaders, available for patron check out	Allows library patrons to check out Nook eReader, pre-loaded with 20 books of varying genres and provides training on how to use the devices. Program will include extensive staff and patron assessments before, during, and after the project is implemented.	<a href="http://www.saclibrary.org/?pageId=1465">http://www.saclibrary.org/?pageId=1465</a>
26	San Diego (city)	City website <sup>45</sup>	City website with links to departments, videos, and access to Facebook and Twitter accounts of different city agencies, departments, and officials.	<a href="http://www.sandiego.gov/">http://www.sandiego.gov/</a>
27	San Diego (city) Public Utilities Department	Water and Sewer Bill Redesign city; customer survey	Online survey to obtain ratepayer satisfaction, clarity levels, and preferences relating to water and sewer bills.	<a href="http://www.surveymonkey.com/s/Water_and_Sewer_Bill_Redesign_Survey">http://www.surveymonkey.com/s/Water_and_Sewer_Bill_Redesign_Survey</a>
28	San Francisco	DataSF; Online clearinghouse of data sets from the City and County of San Francisco	Provides 191 data sets from 28 agencies including the Department of Public Works, SF International Airport, Municipal Transportation Agency, Rent Board, and others. Allows users to create and employ a wide variety of apps to access and use the data and allows users to comment on the data and request additional information.	<a href="http://datasf.org/page.php?page=about">http://datasf.org/page.php?page=about</a>
29	San Benito County	Juvenile Hall Orientation Video <sup>46</sup>	Video made in partnership with the county Probation Department and San Benito High School students to bridge the gap in communication between in-custody minors, parents/guardian, and the county.	<a href="http://www.csac.counties.org/default.asp?id=2696">http://www.csac.counties.org/default.asp?id=2696</a>
30	San Diego State University	Immersive Visualization Center; InRelief.org <sup>47</sup>	Merging of visual data with 3-D animation to recreate incident scenes. Promotes more efficient emergency response by fusing visual data collected by the military and other agencies with 3-D animation, allowing responders and dispatchers to view true-to-life representations of incident sites.	<a href="http://www.foundation.sdsu.edu/pi_in_the_news/eric_frost_fight_wildfires.html">http://www.foundation.sdsu.edu/pi_in_the_news/eric_frost_fight_wildfires.html</a>

Item #	Entity	Initiative/Technology	Description	Additional Information
31	San Juan Unified School District	SJ Scene e-newsletter; Opt-in E-mail newsletter	Biweekly e-mailed newsletter that provides school and district information to parents, students, faculty/staff, and community members.	<a href="http://www.san-juan.edu/email-signup.cfm">http://www.san-juan.edu/email-signup.cfm</a>
32	San Ramon Valley Fire Protection District	CPR Smartphone app; Location-aware iPhone application <sup>48</sup>	Allows private citizens trained in CPR to register and be alerted if someone near them is in need of CPR. The application also directs those in need to the nearest Automated External Defibrillator.	<a href="http://www.firedepartment.org/mobi/SRVFPD_iPhone_Media_Release.pdf">http://www.firedepartment.org/mobi/SRVFPD_iPhone_Media_Release.pdf</a>
33	San Ramon Valley Fire Protection District	firedepartment.org; iPhone app <sup>49</sup>	Allows users to access streaming audio of District emergency dispatches, view real-time video of incidents via two webcams, and check District news and alerts via Twitter, iPhones and iPads.	<a href="http://www.firedepartment.org/live_dispatch/default.asp">http://www.firedepartment.org/live_dispatch/default.asp</a>
34	Santa Clara County	Online Inmate Information and Jail Visit Scheduling Initiative; secure, web-based self-service system <sup>50</sup>	Allows users to log in to request a jail visitation appointment, with confirmation, follow up reminders, and emails regarding changes. The system improves monitoring and regulation of visits and allows the public to obtain booking, bail, and hearing information.	<a href="http://eservices.sccgov.gov/ovr/disclaimer.do">http://eservices.sccgov.gov/ovr/disclaimer.do</a> <a href="http://www.youtube.com/watch?v=i8Seolbrh-I">http://www.youtube.com/watch?v=i8Seolbrh-I</a>
35	Santa Clara County	Project Lifesaver Team; GPS-embedded bracelets for cognitively impaired persons,	The Sheriff's Office provides free bracelets embedded with GPS to anyone diagnosed with a cognitive disorder, such as Alzheimer's disease, dementia or autism, and is prone to getting lost. If the person goes missing, a call to 9-1-1, routed through EmFinders, helps locate the person within 30 minutes.	<a href="http://www.sccs-sar.org/">http://www.sccs-sar.org/</a>
36	Santa Cruz (city)	Budget Feedback Site	Participatory budget challenge involving Internet submissions and voting by citizens.	<a href="http://www.noozhawk.com/article/042411_santa_barbara_challenge_santa_cruz/">http://www.noozhawk.com/article/042411_santa_barbara_challenge_santa_cruz/</a>
37	Santa Cruz (city)	City crime-mapping website; Advanced mapping engine used to extract crime data and allows it to be viewed on a browser	Allows the viewing of real time crime mapping in the community.	<a href="http://www.santacruzsentinel.com/ci_14786321?source=most_viewed">http://www.santacruzsentinel.com/ci_14786321?source=most_viewed</a>




Item #	Entity	Initiative/Technology	Description	Additional Information
38	Santa Cruz (city)	Smartphone app	Allows the public to access the police scanner feed, real-time online crime maps, videos, blogs, crime alerts, and allows reporting of crime tips from mobile phones.	<a href="http://www.cityofsantacruz.com/index.aspx?page=56">http://www.cityofsantacruz.com/index.aspx?page=56</a>
39	Tuolumne County Library	Tech-Know Rodeo; exposition teaching participants how to utilize the libraries digital resources and website <sup>51</sup>	All day event featured demonstrations and prizes aimed at residents over the age of 40 to encourage the use of electronic resources to find and reserve books from home computers with the help of library staff, the community college, county schools, and database vendors.	<a href="http://www.csac.counties.org/default.asp?id=1945">http://www.csac.counties.org/default.asp?id=1945</a>
40	Weed (city)	Website	Basic access to city information, including Council priorities and weekly administrator's report.	<a href="http://www.ci.weed.ca.us/">http://www.ci.weed.ca.us/</a>
41	Yuba County	GIS portal <sup>52</sup>	Online GIS information relating to parcels and allowing users to access information about land development projects and permits, school district data, county facility searches, polling places, etc.	<a href="http://gis.co.yuba.ca.us/apps.html">http://gis.co.yuba.ca.us/apps.html</a>

### III. A Selection of Best Practice Resources, Award-Giving Entities, and Other Helpful Organizations and Websites

A variety of public, private, and academic resources provide advice, principles, best practices, and metrics for designing, implementing, and/or improving local governments' technology use. In addition, a number of entities grant awards to local government technology initiatives using criteria that may be helpful in distinguishing projects with the best likelihood of success. Among them:

- **California Information Services Directors Association: Innovation Awards** — best practices papers and awards spotlighting exceptional technology initiatives in a variety of categories.<sup>53</sup>
- **California State Association of Counties: Challenge Awards** — awards recognizing the innovative and creative ways that California county governments find new and effective ways of providing programs and services to the public in ways that are innovative, unique, and easily replicable.<sup>54</sup>

- **Center for Digital Government: Best of California and Best in Digital Achievement Awards** — information and surveys of local government technology initiatives and awards for innovative projects.<sup>55</sup>
- **Civic Commons** — information relating to open source applications and technologies.<sup>56</sup>
- **Code for America** — facilitating web-based solutions to public agency problems, including metrics for gauging success.<sup>57</sup>
- **Computerworld Magazine** — articles on technology-related topics, including how government uses software, social media, and other tools; advice and best practices; and “Computerworld’s Honor’s Program” recognizing users of information technology to benefit society through innovation, open access, and other categories.<sup>58</sup>
- **The Davenport Institute, Pepperdine University** — information, publications, conferences, measurement benchmarks and standards, forums, and certification programs relating to public engagement and public sector performance.<sup>59</sup>
- **Govloop** — social networking and information-sharing site for government.<sup>60</sup>

- **International Academy of Digital Arts and Sciences: Webby Awards** — recognizing excellence in interactive content across emerging technologies.<sup>61</sup>
- **League of California Cities: Helen Putnam Award** — award program for cities that demonstrate outstanding efforts and innovative solutions to: improve the quality of life in local communities, implement efficiencies in service delivery and operations, and provide services responsive to the local community, with consideration to given to the extent that technologies are involved in innovative ways.<sup>62</sup>
- **League of Cities Social Media Resources** — advice and best practices for using electronic communication and social media.<sup>63 64</sup>
- **Municipal Information System Association of California: Quality in IT Practices Recognition; Achievement and Excellence Awards** — information on baseline performance levels for city and special district IT practices and awards program for exceptional IT efforts and outstanding accomplishments.<sup>65</sup>
- **Municipal Performance Measuring System** — tools to collect, track, and analyze data in 11 functional areas with up to 120 performance measures.<sup>66</sup>
- **OpenPlans** — non-profit technology organization promoting open government, with an emphasis on urban planning and transportation.<sup>67</sup>
- **The Participatory Budgeting Project** — information, descriptions, and technical assistance relating to participatory budget experiments.<sup>68</sup>
- **Public Agenda** — advice and best practices relating to public engagement, including use of the Internet.<sup>69</sup>
- **Public Performance Measuring and Reporting Network** — promoting the use of valid and reliable data to improve public services.<sup>70</sup>
- **Public Technology Institute** — research, education, best practices, metrics, and recognition programs relating to citizen-engaged communities that use technology to inform and interact with residents.<sup>71</sup>
- **University of Pennsylvania Fels Institute of Government** — promising practices in the public sector, including use of GIS for resource management.<sup>72</sup> 

## IV. Opportunities for Further Research, Analysis and Advancement

Local technology experiments represent a diverse and dynamic array of projects in both the civic engagement and service improvement spheres. The quantity and configuration of technology-based solutions are limited only by our imagination and resources. As local governments and the public look to current and future technologies to share information, solve problems, improve efficiency and reduce costs, additional research and analysis in the following areas could help maximize the benefits of innovative approaches:

**1. Performance measures and metrics.** Local agencies express confidence that their use of technology helps them save time and money, increase public engagement, or improve services. But these agencies often lack objective performance criteria and hard data to quantify these benefits. Developing quantitative metrics and performance criteria and using them to measure the outcome of these projects would help improve our knowledge base, guide ongoing management, and increase accountability.

Many localities, for example, could benefit from implementing the IT dashboard — a technology package developed for the federal government’s IT.USAspending.gov, and made freely available by Civic Commons in March 2011.<sup>73</sup> And while cost savings are critical, tools and standards for measuring communities’ information needs — and the inclusivity and effectiveness of the projects being proposed — are needed as well.

**2. Technology and best practice clearinghouse.** Bright, energetic leaders in the public, private and non-profit sectors are advancing local technology projects within their communities. In some cases, valuable information relating to the planning, adoption, implementation and management of technologies may not be easily accessible to other entities considering a similar technology solution. This failure may be because another innovator has not shared what she or he learned, or because the local agency simply does not know where to look. With information on initiatives, technologies and policies existing on a disparate and dizzying array of websites, a regular and coordinated effort to collect, catalog and share local governments’ solutions, best practices and pitfalls could help other agencies avoid needless mistakes and increase the likelihood of successes.

While a number of organizations compile helpful advice and best practice tips on certain types or categories of technology initiatives (see Appendix B), there is no single source for California local agencies who wish to learn from the complete range of technology options and alternatives. A consolidated clearinghouse for these innovations would be tremendously helpful to communities seeking proven innovations. And convening local innovators — technologists and government officials, to teach one another both virtually and in person — would dramatically accelerate the dissemination of the best examples.

**3. Standardize access and web portals across California.** Standardization should start with web addresses. Local agency internet addresses encompass a wide variety of top level domains [the last part of the uniform resource locator (URL) that comes after the period], including “.org,” “.gov,” “.us,” “.net,” “.com,” “.info,” “.ws” in their web address, which reduces transparency and accessibility. A coordinated effort to standardize the web addresses of local agencies could improve the ability to the public to find and use websites.

Such an effort should include a portal that allows Californians to type in their zip code and receive a list of the overlapping local and state government portals that cover their location.

## Conclusion

California’s innovative culture extends to its local governments. And those governments have made considerable progress in building a future in which technology transforms government and the relationship citizens have to it.

What should the future of California government be? The promise of eGovernment is a more democratic, citizen- and community-centered problem-solving society that

embodies less top-down government control. Problems and solutions flow directly from citizens with little or no public agency interference or handling.

Data, deliberations, and solutions (including user-generated apps and software) are fully transparent, totally democratic, and freely available to anyone online to view, download, engage, and analyze as they choose. Social media (such as Facebook and Twitter) are integrated into civic engagement, service requests, and problem-solving as a way to identify and empower civic leaders who can, in turn, harness community sentiment into action.

In this future construct, collaboration occurs between all levels of government (across the state and around the world) and equally with private and non-profit sectors and the public. Solutions arise from participants, are vetted by citizens and interested parties, and utilize open source solutions (digital, software, computer codes, and technology advances) that are developed without proprietary, copyright, or other constraints so that they are available free to all. Community residents, rather than the public workforce or private contractors, provide ideas, technology, and even the manual labor needed to accomplish societal goals.

California’s fiscal and governance problems — and its technological prowess — offer the state a special opportunity to lead. Government must be redesigned to revive civic engagement and reckon with the challenges of diminished resources. But such a redesign requires a new infrastructure to foster cooperation and the sharing of experience among governments, and to support research into best practices.

Such an effort must be citizen-directed — but it also must be curated and guided by those who understand the promise of technology for government. This is a big task. The good news is that Californians have already begun. ♦

## Appendix A: Acknowledgements

The following people generously assisted with the research and examples contained in this report:

**Terry Amsler**, Institute for Local Government  
**Bob Braulik**, City of Palo Alto  
**Emily Cole**, League of California Cities  
**Kit Cole**, Southern California Edison  
**Peter Detwiler**, Senate Committee on Governance and Fiscal Policy  
**Kimberly French**, San Ramon Valley Fire Protection District  
**Nicole Dunn**, California Special Districts Association  
**Allison Fuller**, League of California Cities  
**Justin Haessly**, Rancho California Water District  
**Greg Hermann**, City of Carlsbad  
**Melinda Johansson**, Santa Barbara Noozhawk  
**Greg Keiden**, Institute for Local Government  
**Peter Koht**, City of Santa Cruz  
**Alison Lehman**, Nevada County  
**Josh Lerner**, The Participatory Budgeting Project  
**William Macfadyen**, Santa Barbara Noozhawk  
**Kendra Malek**, Code Creativity  
**Steve Monaghan**, Nevada County  
**Jay Nath**, City and County of San Francisco  
**Jennifer Pahlka**, Code for America  
**Pete Peterson**, Davenport Institute  
**Richard Price**, San Ramon Valley Fire Protection District  
**Tex Ritter**, Nevada County  
**Dakin Sloss**, California Common Sense  
**Kendall Smith**, Government Outreach  
**Beverly Thames**, San Mateo County  
**Ken Wahlen**, Crop Production Services

## Appendix B: About the Authors

**April Manatt** provided policy advice and analysis to the California State Legislature for nine years as a legislative assistant, committee consultant, and Chief Consultant to the Senate Local Government Committee. She now works as a private consultant specializing in intergovernmental relations and the powers, organization and financing of local agencies.

**Stephen G. Blake** is a private consultant specializing in policy and finance reform related to public education and state governance, who in 2011 led the New America Foundation's California Political Innovation Project. He previously directed the Governor's Committee on Education Excellence and the California Legislature's Joint Committee to Develop a Master Plan for Education.

**Joe Mathews**, a fourth-generation Californian, is an Irvine Senior Fellow at the New America Foundation, and the associate editor at Zócalo Public Square. He is the co-author, with Mark Paul, of *California Crackup: How Reform Broke the Golden State and How We Can Fix It* (University of California Press, 2010).

**Troy K. Schneider** is Director of Media & Communications at the New America Foundation. His work in online journalism and community-level innovation began with TimesLink, the *Los Angeles Times*' early-1990s precursor to LATimes.com.

## Appendix C: Endnotes

- 1 California State Association of Counties (<http://www.csac.counties.org/default.asp?id=7>); League of California Cities; League of California Cities ([http://events.cacities.org/cgi-shl/TWServer.exe?Run:CITYWEB\\_1:PREV:1](http://events.cacities.org/cgi-shl/TWServer.exe?Run:CITYWEB_1:PREV:1))
- 2 <http://www.amador-city.com/government.html>
- 3 <http://www.ci.weed.ca.us/>
- 4 <http://www.santa-clarita.com/>
- 5 <http://www.acgov.org/index.htm>
- 6 League of California Cities, “Twitter basics, signing up and best practices” and “Facebook basics, signing up and best practices”: [http://lccannualconference.com/index.php?option=com\\_docman&task=cat\\_view&gid=75&dir=DESC&order=name&Itemid=489&limit=5&limitstart=5](http://lccannualconference.com/index.php?option=com_docman&task=cat_view&gid=75&dir=DESC&order=name&Itemid=489&limit=5&limitstart=5)
- 7 “Social Media Management: Taking Your Efforts to the Next Level,” (Power Point Presentation), Allison Fuller, Emily Cole, and Christine Brainerd, California Association of Public Information Officers Conference, Sacramento, CA, April 14, 2011
- 8 <http://www.facebook.com/PortofLB>
- 9 Cole, Emily. “Meet Twitter: Social Media for City Officials Short on Time.” *Western City Magazine*, June 2011: <http://www.westerncity.com/Western-City/June-2011/Meet-Twitter-Social-Media-for-City-Officials-Short-on-Time/>
- 10 “Yuba County GIS: Best Application Serving the Public,” Innovation Award Entries, August 2005, California County Information Services Directors Association, <http://www.ccisda.org/docs/index.cfm?DocumentScreen=Detail&ccs=185&cl=103>
- 11 <http://www.martinez.k12.ca.us/departments/superintendent>
- 12 <https://berkeley.catalogchoice.org/>
- 13 <http://gis.co.yuba.ca.us/>
- 14 <http://www.co.marin.ca.us/depts/is/main/gis/>
- 15 <http://www.cityofsantacruz.com/index.aspx?page=56>
- 16 <http://www.anaheim.net/articlenew222.asp?id=4196>
- 17 “Go Long Beach App Lets Residents Tap Into City Services, Faster, Easier.” *Everything Long Beach*, October 29, 2010: [www.everythinglongbeach.com/go-long-beach-iphone-app-released/](http://www.everythinglongbeach.com/go-long-beach-iphone-app-released/)
- 18 <http://publicportal.ousd.k12.ca.us/199410814164823540/site/default.asp>
- 19 [http://www.surveymonkey.com/s/Water\\_and\\_Sewer\\_Bill\\_Redesign\\_Survey](http://www.surveymonkey.com/s/Water_and_Sewer_Bill_Redesign_Survey)
- 20 Santa Cruz, Nicole. “For chronic truants, a GPS program can help them make the grade.” *Los Angeles Times* February 25, 2011
- 21 Carpenter, Eric. “Kids who skip school are tracked by GPS.” *Orange County Register*, February 17, 2011: <http://www.ocregister.com/articles/school-288730-students-program.html>
- 22 Gomez, Mark. “Santa Clara County: Special GPS bracelets available for elderly, mentally ill.” *Mercury News* April 6, 2011: [http://www.mercurynews.com/ci\\_17784058?source=most\\_emailed&nclick\\_check=1](http://www.mercurynews.com/ci_17784058?source=most_emailed&nclick_check=1)
- 23 Email communication with Kimberly French, San Ramon Fire District
- 24 San Ramon Valley Fire Protection District. (January 25, 2011) “San Ramon Valley Fire Protection District to Dispatch Citizens to Cardiac Emergencies.” [http://www.firedepartment.org/mobi/SRVFPD\\_iPhone\\_Media\\_Release.pdf](http://www.firedepartment.org/mobi/SRVFPD_iPhone_Media_Release.pdf)
- 25 <http://www.pbcisd.org/>
- 26 Rancho California Water District. (April 11, 2011) “Rancho California Water District’s Agricultural Wireless Telemetry for Irrigation Efficiency Pilot Project.”: [https://www.ranchowater.com/files/AG\\_telemetry\\_project\\_press%20finaldocx.pdf](https://www.ranchowater.com/files/AG_telemetry_project_press%20finaldocx.pdf)
- 27 Phone interview with Justin Haessly, Rancho California Water District, August 2, 2011

- 28 California County Information Services Directors Association 2007 CCISDA Innovation Award Category Winners <http://www.ccisda.org/awards/>
- 29 <http://baybridgeinfo.org/baybridge360>
- 30 [http://www.cityofpaloalto.org/depts/cou/see\\_it.asp](http://www.cityofpaloalto.org/depts/cou/see_it.asp)
- 31 Lerner, Josh and Daniel Schugurensky, "Who Learns What in Participatory Democracy? Participatory Budgeting in Rosario, Argentina", in Ruud van der Veen, et al (eds.), *Democratic Practices as Learning Opportunities*, Rotterdam: Sense Publishers, 2007.
- 32 Biaocchi, Gianpaolo. "Participation, Activism, and Politics: The Porto Alegre Experiment and Deliberative Democratic Theory." University of Wisconsin-Madison November, 1999.
- 33 Ross, Andrew. "Online suggestion box to help cut S.F. deficit." *San Francisco Chronicle*, March 10, 2010: [http://articles.sfgate.com/2010-03-10/business/18383132\\_1\\_muni-brian-purchia-city-hall](http://articles.sfgate.com/2010-03-10/business/18383132_1_muni-brian-purchia-city-hall)
- 34 Email exchange with Beverly Thames, San Mateo County
- 35 Federal News Radio Interview, "Meet the Innovators," September 21, 2009: <http://www.federalnewsradio.com/index.php?nid=19&sid=1767547>
- 36 Phone interview with Beverly Thames, San Mateo County
- 37 <http://www.youtube.com/watch?v=n1ywXgR6QUs>
- 38 Email exchange with Petre Koht, City of Santa Cruz
- 39 [http://www.noozhawk.com/article/041611\\_santa\\_barbara\\_challenge\\_overview/](http://www.noozhawk.com/article/041611_santa_barbara_challenge_overview/)
- 40 Newsom, Gavin. "San Francisco Open's the City's Data." *TechCrunch*, August 19, 2009: <http://techcrunch.com/2009/08/19/san-francisco-opens-the-city%E2%80%99s-data/>
- 41 Finalist, Center for Digital Government Achievement Award, County Portal, 2010
- 42 Winner, International Academy of Digital Arts and Sciences "Webby" award, 2010
- 43 Winner, California County Information Services Directors Association Innovation Award, 2007
- 44 Winner, California County Information Services Directors Association Innovation Award, 2005
- 45 Finalist, Center for Digital Government Achievement Award, City Portal, 2010; *Sunshine Review* "Sunny Award" A+ for transparency
- 46 Recipient, California Counties Challenge Award, 2009
- 47 Eric Frost, Honoree, *GovTech.com Top 25 Doers, Dreamers & Drivers in Public Sector Innovation*, 2011
- 48 Laureate for Innovation, *Computerworld Honors Program*, 2011
- 49 Nominee, International Academy of Digital Arts and Sciences "Webby" Award, 2010
- 50 Winner, California County Information Services Directors Association Innovation Award, 2007
- 51 Recipient, California Counties Challenge Award, 2007
- 52 Winner, California County Information Services Directors Association Innovation Award, 2005
- 53 <http://www.ccisda.org/home/>
- 54 <http://www.counties.org/default.asp?id=798>
- 55 <http://www.centerdigitalgov.com/survey/2581>
- 56 <http://civiccommons.org/>
- 57 <http://codeforamerica.org/2011/04/04/understanding-the-engagement-toolkit/>
- 58 [www.computerworld.com](http://www.computerworld.com)
- 59 <http://publicpolicy.pepperdine.edu/davenport-institute/>

60 <http://www.govloop.com/>

61 <http://www.webbyawards.com/>

62 [http://www.cacities.org/index.jsp?zone=locc& preview-Story=702](http://www.cacities.org/index.jsp?zone=locc&preview-Story=702)

63 [http://lccannualconference.com/index.php?option=com\\_docman&task=cat\\_view&gid=75&dir=DESC&order=name&Itemid=489&limit=5&limitstart=40](http://lccannualconference.com/index.php?option=com_docman&task=cat_view&gid=75&dir=DESC&order=name&Itemid=489&limit=5&limitstart=40) and <http://www.cacities.org/socialmediaresources> and “Social Media Management: Taking your Efforts to the Next Level”

64 <http://www.westerncity.com/Western-City/June-2011/Getting-the-Most-Out-of-Electronic-Communication/>

65 <http://www.misac.org/state/exctech.asp>

66 [http://njpm.spaa.rutgers.edu/Direction\\_to\\_NJPM.pdf](http://njpm.spaa.rutgers.edu/Direction_to_NJPM.pdf)

67 <http://openplans.org/overview/>

68 <http://www.participatorybudgeting.org/>

69 “Promising Practices in Online Engagement,” <http://www.publicagenda.org/pages/promising-practices-in-online-engagement>

70 <http://www.ppmrn.net/>

71 <http://www.pti.org/index.php>

72 “Making the Most of Social Media” [https://www.fels.upenn.edu/sites/www.fels.upenn.edu/files/PP3\\_SocialMedia.pdf](https://www.fels.upenn.edu/sites/www.fels.upenn.edu/files/PP3_SocialMedia.pdf) and [https://www.fels.upenn.edu/sites/www.fels.upenn.edu/files/Fels\\_Promising\\_Practices\\_vol.\\_2\\_1.pdf](https://www.fels.upenn.edu/sites/www.fels.upenn.edu/files/Fels_Promising_Practices_vol._2_1.pdf)

73 “IT Dashboard is Now in the Civic Commons,” <http://codeforamerica.org/2011/03/31/it-dashboard-is-now-in-the-civic-commons/>

**MAIN OFFICE**

1899 L Street, NW  
Suite 400  
Washington, DC 20036  
Phone 202 986 2700  
Fax 202 986 3696

**CALIFORNIA OFFICE**

921 11th Street  
Suite 901  
Sacramento, CA 95814  
Phone 916 448 5189  
Fax 916 448 3724



NEW  
AMERICA  
FOUNDATION

[WWW.NEWAMERICA.NET](http://WWW.NEWAMERICA.NET)