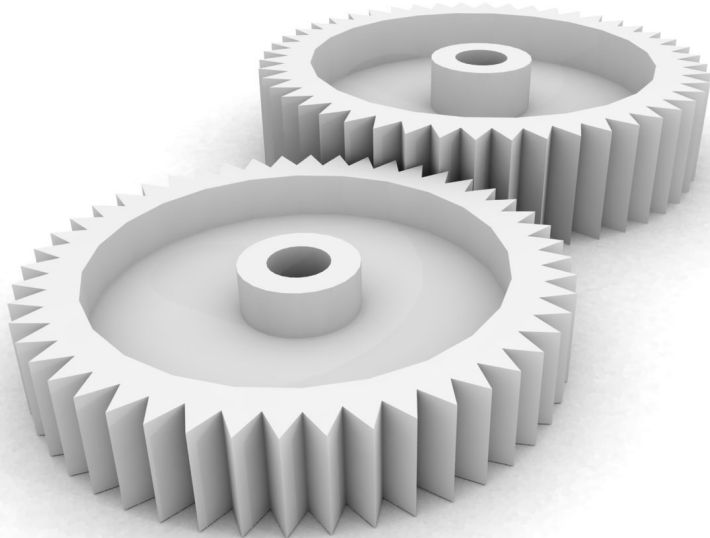


# EMERGING TECHNOLOGIES



INSTITUTE FOR  
LOCAL GOVERNMENT<sup>SM</sup>

# TIPS



## **Open Data**

- Agency data becomes more accessible with viewers and computer readable datasets
- Agency's should explore what information could be shared that is of high interest
- An opportunity to enhance public trust through transparency and better involve the public in discussions on the budget and projects
- Data must be provided in accessible formats for community use

## **Code for America**

- Partners with cities and counties to build applications to solve problems
- Holds a competitive process to obtain free Fellows each year
- Offers free resources for all interested cities and counties
- Creates new software companies and jobs

## **Applications & Magazines**

- Agency staff can take blogs, web site information and convert them into apps
- High quality and colorful magazines can be created using web site & blog feeds
- Large amounts of agency information or smaller project-specific sets can be used

## **Beyond High Definition Video**

- Smartphones, laptops and desktop PCs are offering beyond HD quality video
- New products are coming to capitalize on this with beyond HD support
- This will be an opportunity for agency videos to really stand out via internet streaming

The articles in this series have focused on technologies available to local agencies that can enhance public engagement efforts. This section will explore some of the newer opportunities that place the public in the role of providers and/or analyzers of civic information – not just passive consumers.

As the IT world changes, more data is managed with open source, cloud-based computing that changes the landscape of local technology. Instead of relying solely on large IT contracts and a rigid procurement process, some aspects of local government information can now be opened up to community member volunteers to help generate the data (e.g., via mobile apps), and analyze the data via more uniform APIs (Application Programming Interface). Instead of using fixed IT resources to manage data, now cities and counties are examining whether and how to shift their role to being a collaborator and coordinator with outside partners.

#### **About the Institute for Local Government**

ILG is the nonprofit 501(c)(3) research and education affiliate of the League of California Cities and the California State Association of Counties. For more information and to access the Institute's resources on Public Engagement and technology visit [www.ca-ilg.org/public-engagement-technology](http://www.ca-ilg.org/public-engagement-technology). To access this resource directly, go to [www.ca-ilg.org/EmergingTechnologies](http://www.ca-ilg.org/EmergingTechnologies).

- The Institute welcomes feedback on this resource:
- Email: [info@ca-ilg.org](mailto:info@ca-ilg.org) Subject: Emerging Technologies
- Mail: 1400 K Street, Suite 205 ▪ Sacramento, CA ▪ 95814

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##### Primary Author:

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# OPEN DATA

Open Data is a term that refers to making information freely available on the internet. As it applies to local government agencies, it covers agencies that post information in a form that can be analyzed and viewed by a variety of computer programs.

Typically this means providing agency information in maps, charts, tables, datasets, calendars, documents and forms rather than a static, difficult to edit format. Once information is made available in this manner, residents can view and analyze the data and software companies can develop new programs that use this data.

When deciding what information to make available to the public, agencies will want to consider what programs and work the agency does that the public would like to learn about at a more detailed level. In addition to enhancing transparency, some agencies believe open data programs could result in a reduced level of Public Records Act requests in the future.

In terms of sharing information, local agencies will also need to look at many of the same considerations and rules they follow when requests are made for other types of information. This includes following local ordinances and state laws regarding information that must be kept confidential because it is deemed to be confidential, proprietary or protected by law vs. what information is part of the public record and can be disclosed and shared upon request.

Local governments will want to work closely with their agency counsel for guidance in developing an open data policy. The reference section of this article includes some good articles and guides that can help you address this area when developing an open data policy and program.

A good piece of advice that balances these considerations and requirements can be found in the Open Data Policy from San Mateo County that has been highlighted by the Sunlight Foundation. The county's policy says, in part:

*“The County’s Open Data Committee will be responsible for...developing standards to determine which data sets are appropriate for public disclosure, by balancing the benefits of Open Data with the need to protect disclosure of information that is confidential, proprietary, or protected by law.”*

Examples of Open Data available today from cities and counties include:

- Annual Budget and Financial Data
- Police Department Location of Crime Maps
- Service Requests Received by the City
- Parking Spaces in the City in a Dataset
- Location of Building Permits Issued
- Maps of City Parks and Recreation Sites
- List of Food Trucks with Permits
- List of Certified Green Businesses

There is a wide variety of information being shared with the public and software vendors. In many cases, this information is already on the agency website or document management system. So it is often a case of converting the report or information from its current format (like a document or a spreadsheet) into an open data usable table, dataset or map.

While the initial push for open data involved simply making these datasets available in computer-usable form, some cities and counties are now offering viewer and dashboard software along with the information on agency web sites. Products with these capabilities start at approximately \$750 per month, depending on features and the size of the open data collection. This enhancement is a step forward for open data in that it allows anyone to view the data without doing their own manipulation on a spreadsheet, database or mapping program on their computer.

Generally speaking, open data is usually part of an agency's program to enhance transparency and information sharing with the public rather than public engagement. However, it can play a role in some of an agency's public engagement work as well.

In terms of public engagement, one of the first uses of open data has been to encourage discussion of the agency's proposed budget. However, an agency can post datasets that relate to specific projects or proposals in an existing open data system and viewer and then link to it on the project's web site or discussion area. There are some interesting possibilities here as open data becomes more prevalent in cities and counties. A key challenge is to make sure that the release of data comes in forms and formats that make sense to the desired public audiences.

# CODE FOR AMERICA

Code for America is a 501 (c)(3) non-profit that is exploring how technology can help government operate more collaboratively and effectively. The organization's signature Fellows program provides technology volunteers to partner with a government agency. These volunteers develop applications that connect residents with their city or county and new companies that will provide or sell technology products to the public sector. In some instances these software programs utilize open data. It is an interesting initiative that is helping to source outside talent to help solve problems for agencies and create new software businesses as an economic stimulus at the same time.

To participate in the Code for America Fellows program, an agency completes an application form that describes the challenge they face and how technology may solve it. From the applications received, Code for America selects several projects to take on each year. Examples of problems solved by their software include:

- Obtain feedback from the public
- Make it easier to make service requests to an agency
- Find a service that addresses a resident's problem
- Create a database listing of public art
- Allow a discussion forum to crowdsource ideas, share assets or manage feedback
- Generate up to date information on blighted properties
- Streamline the process for new businesses to obtain permits and licenses
- Manage police arrest warrants, improving real time information

Code for America also has local "brigades" of coding volunteers and enthusiasts available to interested local governments, whether or not they have a Fellows program. The organization also offers a Peer Support program for local governments.

# CREATING APPLICATIONS AND MAGAZINES

While the initial focus of open data efforts was on partnerships with software vendors, hack-a-thons and nonprofit groups like Code for America or local “brigades,” there are some additional possibilities. Once an agency has tables, lists and budget information in computer usable form, the agency itself can also develop mobile applications. Initially this could involve tech staff from the Information Technology department or a contract with a software development company. San Diego County has developed an app center (<http://www.sdcounty.ca.gov/appcenter/index.html>) to allow residents to access county information and services such as emergency services, county news and beach water quality while on the go.

More recently, several products and technologies have emerged that offer non-technical users the possibility of developing apps and magazines. These products can be used to pull together information and data on a specific topic or proposal, making them an interesting avenue for better public engagement.

One example of this new area involves taking blogs or websites and converting them into a dedicated app. The software starts with this information and then allows the user to add graphics, images, web links and menus before the entire collection of information is converted into an app usable on a smartphone, tablet, laptop or PC.

Another example involves programs that aggregate content from various sections of a website and blogs into a magazine. These electronic magazines are touch-enabled and feature web links, and very high quality fonts and images. In short, information becomes a glossy electronic publication with some initial formatting and design and no programming required.

Time will tell how often new technologies and programs like this are used. One approach is to bundle a considerable amount of information about a city or county into such an app or magazine. However, an agency could also develop an app or magazine for a specific project or proposal – or a major initiative like the General Plan update, and create a very colorful and compelling new way to learn about and view the proposal and its process as it proceeds.

# BEYOND HIGH DEFINITION VIDEO

Video technology continues to advance in the home TV, smartphone and computer markets. Vendors are exploring avenues with laptops and workstations for publishing, CAD and engineering applications that exceed retina display levels to full 4K video quality coming as soon as the summer of 2014.

So even though recording and posting HD videos is looked at as state of the art today, upcoming TV sets and laptops will be able to display even higher quality video in the very near future. This indicates that there will be an opportunity, as the prices of these products drop in the future, for local agencies to record and stream their meetings, workshops, events and educational videos in even higher quality. It will be an interesting option for agencies that is likely not that far off – and it will supply dramatically sharper and more detailed videos.



# FOR MORE INFORMATION

## Open Data Articles

City of Palo Alto's CIO Explains the Benefits of Open Data  
<http://gigaom.com/2014/01/02/the-city-palo-altos-cio-explains-the-benefits-of-open-data/>

Google Wants the Government's Open Data  
<http://www.forbes.com/sites/jeffcmahon/2013/11/03/google-wants-the-governments-data-on-you/>

Knight Foundation Announces New Funding for Open Data Effort  
<http://civsourceonline.com/2013/10/29/knight-foundation-announces-new-funding-for-open-data-effort/>

Los Angeles Mayor Calls for Open Data Policy  
<http://civsourceonline.com/2013/12/19/los-angeles-mayor-calls-for-open-data-policy/>

Open Budget Application Improves Palo Alto, Calif.'s Accessibility  
<http://www.govtech.com/budget-finance/Open-Budget-Application-Improves-Palo-Alto-Califs-Accessibility.html>

Open Civic Data and the Human Services — Looking Beyond Today's Flea Market  
<http://humanserviceinformatics.wordpress.com/2014/01/16/open-civic-data-and-the-human-services-moving-beyond-the-flea-market/#>

Open Data Roundup: Hacks, Apps, Sundry-thons  
<http://civsourceonline.com/2014/01/22/open-data-roundup-hacks-apps-sundry-thons/>

Public Engagement in Budgeting  
[http://www.ca-ilg.org/sites/main/files/file-attachments/community\\_budget\\_112013.pdf](http://www.ca-ilg.org/sites/main/files/file-attachments/community_budget_112013.pdf)

What Code for America Has, and Hasn't, Learned About Getting "Beyond Transparency"  
<http://techpresident.com/news/wegov/24533/book-review-what-code-america-has-and-hasnt-learned-about-getting-beyond-transparency>

## Open Data Policies

Sample Open Data Policies from the Sunlight Foundation  
[https://docs.google.com/spreadsheet/ccc?key=0Ap0CEAgs-R\\_odFc0Qk1WNHdIUDE3bUNVd1U3WUlnbIE#gid=0](https://docs.google.com/spreadsheet/ccc?key=0Ap0CEAgs-R_odFc0Qk1WNHdIUDE3bUNVd1U3WUlnbIE#gid=0)

Open Data Policy – San Mateo County  
<https://data.smcgov.org/Government/San-Mateo-County-Open-Data-Policy/pebe-j2ye>

Open Data Policy Guidelines  
<http://sunlightfoundation.com/opendataguidelines/>

## Agency Open Data Web Sites

City of Cupertino  
<http://data.cupertino.org/home/>

City of Oakland  
<https://data.oaklandnet.com/browse?utf8=%E2%9C%93&page=11>

City of Palo Alto  
<http://paloalto.opendata.junar.com/>

City of Sacramento  
<http://data.cityofsacramento.org/home/>

City & County of San Francisco  
<https://data.sfgov.org/>

City of San Jose  
<http://data.sanjoseca.gov/home/>

City of Santa Cruz  
<http://data.cityofsantacruz.com/>

Alameda County  
<https://data.acgov.org/>

San Mateo County  
<https://data.smcgov.org/>

State of California  
<http://data.ca.gov/about/>

U.S. Government  
<http://www.data.gov/>

## Creating Applications & Magazines Articles

Flipboard Launches User-Created Magazines  
<http://www.engadget.com/2013/03/26/flipboard-user-created-magazines-etsy/>

How to Convert Your WordPress Blog into a Mobile App  
<http://www.warriorforum.com/articles/536131-how-convert-your-wordpress-blog-into-mobile-app.html>

Microsoft's Project Siena: A Metro-Style App for Creating Windows 8 apps  
<http://www.zdnet.com/microsofts-project-siena-a-metro-style-app-for-creating-windows-8-apps-7000024507/>