

Participation in the City: A Typology of Open Government Data Use

Morgan Currie

Department of Information Studies, University of California, Los Angeles
msmorgancurrie@ucla.edu

Abstract

Open Government Data (OGD) is defined broadly as any online publication of government documents, and more specifically as government data sets structured for public consumption and reuse. OGD proponents proclaim its benefits: government transparency, increased civic participation, and more efficient, sustainable cities. Critics point out that access to data is not enough: a sophisticated degree of information literacy is required to use OGD effectively for civic agendas. On either side of the debate, what is often missing is a more empirical understanding of who uses OGD and for what purposes. This poster presents preliminary research on methods that might aid in sifting through the civic uses of OGD. I focus on OGD related to city planning in the United States, namely data on air quality, public transit, and housing, to build a classification of OGD usage and to ask how these data sets might be deployed to enhance civic life.

Keywords: participation, open data, literacy, e-government

Poster Abstract

Open Government Data (OGD) is defined broadly as the online publication of any government document or dataset; more specifically it can refer to government data sets that are structured for public consumption and reuse. In the United States the virtues of open government data have historically included greater access to government documents and proceedings, with the aim of airing out government processes by public oversight. This agenda led to the 1966 Freedom of Information Act (FOIA), the first to give citizens the right to request any document from the executive office. Thirty years later the Electronic Freedom of Information Act lets citizens request records in any format made possible by current applications and instructs agencies to publish public records and final policies within a year of creation. Transparency, accountability and access to previously undisclosed information are the classic motivations behind government release of documents such as legislative information, voting records, daily congressional hearing schedules, and state law.

More recently, however, OGD has become an appeal to third-party innovators. Drawing from peer-to-peer practices of source code sharing, many OGD sites put data into machine-readable, adaptable formats protected by open licenses. OGD in this sense promises more than accountability and access. By contributing to a common pool of data for private reuse without restriction, OGD can theoretically allow raw data to accrue unexpected worth. According to the Open Knowledge Foundation, "Part of the beauty of open government data is that it is impossible to predict precisely how it will be used to create value."¹ Data.gov also spells out that its site goes beyond improving access to Federal data, to increasing "creative use of those data beyond the walls of government by encouraging innovative ideas (e.g., web applications)."²

The implication of OGD's expanded functionality is that, according to its champions, it will foster new modes of civil participation, bottom-up innovation, and even more efficient public service. Mobile apps, for instance, allow citizens to design a variety of services that can help citizens navigate the city and find resources such as public transit schedules. These apps have made an enthusiast out of Tim O'Reilly, who calls OGD a step beyond e-governance towards 'Gov 2.0', or the 'government as platform'.

¹ From the OKF 'About' page at <http://opengovernmentdata.org/about/>.

² From the data.gov 'About' page at <http://www.data.gov/about>.

According to O'Reilly (2009), "In each case, the platform provider raised the bar, and created opportunities for others to exploit." Government information becomes a platform for others to build on, purporting to shift power in the same way that Apple disrupted the phone market when it invited users to design new apps for the iPhone.

There has developed a degree of criticism in response to such optimism for OGD. Professor Michael Gurstein (2011), for instance, points out that participation in OGD more often than not requires technical literacy to repurpose the data usefully and creatively. But how many of us can build an apps and download APIs? The interpretive work essential to using open data effectively – to contextualize it and give it meaning – often requires financial resources, expertise, and training to analyze and report the data to advance certain claims. Gurstein argues that intervention is necessary to make resources for effective use of open data available to low-income and minorities.

Such advocacy would mitigate, to a degree, the problem that in the name of transparency, OGD has become a boon for private commercial investment. Because open licenses don't discriminate against users of raw data, private interests can easily commercialize OGD by appropriating it into non-open systems. The PSI-reuse industry includes LexisNexis, Daily Mail, and Google; Google's Public Data Project, for instance, is currently developing visualization tools that could monopolize data interpretation by locking it into their proprietary, close-source applications. The concern is that without a critical ideological approach to OGD, advocate's zeal for transparency and participation will become another form of corporate subsidy.

On either side of this discussion about OGD's merits and faults, what is missing is more in-depth information gathered on how these data sets are actually being used on the ground to affect change in civic life. Such a study would first need to formulate a typology of usage, whether of a government site's public API for a third-party app, or census data included in a report by a non-profit organization. The research would next ask who is using the data – individuals, civic groups, university researchers or students? – and what this information might say about degree of data literacy required to deploy OGD. Third, it would categorize usage according to a continuum of effectiveness to cause change, so getting to the heart of the question of how much this information encourages civic participation and how affective this participation is. Is the data used to help citizens navigate a transit system through a third-party app, or is it employed to argue for new policies altering a transit system itself? Is the data used to contest policies or representations based on such figures, or even to show where lacunae in public data leads to the suppression of certain demographic information or environmental metrics? Finally, how far can this research go: what methods can catalog the extent of OGD usage in all its forms, and how do we even calculate a metric of OGD 'effectiveness'?

This poster will therefore propose preliminary methods (and obstacles to these) for building a repository of primarily US-based case studies of OGD usage. To narrow its scope (there are after all 389,000 data sets on data.gov alone), I focus particularly on OGD related to city planning in the United States, namely data on air quality, public transit, and housing. The typology will include who is exploiting the data, for what purpose, and how this intervention affects citizen behavior or takes part in political agenda setting. The hope is to present a more complex and informed picture of OGD usage, both for governments and civic organizations or even individuals seeking to understand how they might become more literate in OGD usage, especially as data is increasingly incorporated into the political and economic mechanisms that drive cities today.

References

- Gurstein, M. (2011, 23 January). Open data: Empowering the empowered or effective data use for everyone? *First Monday*, 16(2). Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3316/2764>
- O'Reilly, T. (2009, 4 September). Gov 2.0: It's all about the platform. *TechCrunch*. Retrieved from <http://techcrunch.com/2009/09/04/gov-20-its-all-about-the-platform/>