Using Social Media as a Data-Smart Governance Tool

Stephen Goldsmith | May 19, 2016

Cities can produce great value from social media, but only if they start talking a little bit less about themselves and start listening more to their residents. It's become common for public officials and city agencies to have active Twitter, Facebook, Instagram and even Snapchat accounts through which they broadcast information and gather feedback. But municipal use of social data shouldn't be limited to a communications team telling voters about city hall's daily accomplishments.

Good listening can take the shape of encouraged feedback, but it can also work on a more ambient level. In urban areas, geo-tagged posts across a variety of platforms form dense clusters of valuable information. Much of it is noise, but location-based social media data presents an opportunity. It can be developed into predictive models that enable decision support and should be a vital part of any data-smart government's analytics toolkit.

Gartner recently published a report describing the four phases of an organization's social analytics maturity. The most basic level is "descriptive analysis," in which data is translated into intelligible information about what has happened. The report recommends that organizations push their social analytics through to the diagnostic, predictive, and finally the prescriptive phase. Drilling down on the drivers of online

trends can help predict the impact of future events. But to unlock social data's full potential, the report recommends that organizations pair it with other types of institutional data to generate analytics that make real operational impact.

Consider a few examples of predictive models using social data in the public sector that are already in development. In March, researchers at the University of California at Irvine wrote an article describing a pilot project to supplement San Francisco's food-safety analytics with a predictive tool derived from Yelp reviews. By identifying 71,360 Yelp posts that contained keywords associated with foodborne illness, they developed a model that correctly identified health code violations in 78 percent of the restaurants that had been flagged for violations in the pilot. Michael Luca, a professor at Harvard Business School has also used Yelp review data in Seattle and more recently in Boston to show how prescriptive analytics can lead to cost reductions with better resource allocation and fewer food inspections.

Using Yelp reviews to locate food safety risk is not a new phenomenon in cities, but these pilots are notable for their potential to add operable predictive capacity, particularly as techniques become more sophisticated. The San Francisco study, for example, found that using the Yelp reviews that users had ranked as "most useful" improved the model's accuracy more than lower-ranked reviews. The value of this data, all of which is publicly available online, lay not just in what people wrote but in how they interacted with one another.

Geofeedia, a company that specializes in real-time social media monitoring, has worked with a number of public-sector clients on issues outside of food safety. When the first U.S. cases of Ebola were reported in New York City, the city's Department of Health and Mental Hygiene used Geofeedia to cut through the fear and speculation swelling on social media. The department established sites to administer mass prophylaxis to those who might have been exposed to the virus and utilized Geofeedia's services to provide improved situational awareness for workers on the ground along with decision support for those working in the department's headquarters.

The Los Angeles Police Department used Geofeedia to conduct social media monitoring and keyword analysis related to the illegal distribution of nitrous oxide, which helped locate perpetrators and disrupt the supply chain. And Geofeedia, along with similar vendors, is working with school administrators to monitor social posts, leading in some cases to the identification of gun threats or indication of self-harm that may otherwise have gone unnoticed. In each case, social media was used not for civic engagement but for preemptive interventions that prevented worse problems from unfolding.

The town common holds a special place in the urban imagination. It is the scene of civic life, the place where people congregate to exchange ideas. Today, these interactions largely occur online. Just as local government is responsible for cultivating the space of its physical town commons, so too should it cultivate and capitalize on the digital commons. Public social media posts represent a data source ripe for analytics, one that governments can take advantage of to save time, money and even lives.

Craig Campbell, a research assistant at the Ash Center for Democratic Governance and Innovation at the Harvard Kennedy School, contributed research and writing for this column. This column was originally published on Governing.

http://www.govtech.com/social/Using-Social-Media-as-a-Data-Smart-Governance-Tool.html