

College of Professional Studies

**Case Study: - “CompStat to Gov 2.0: Big Data in New York
City Management”**

Pankti Patel

Northeastern University

Summary

This paper describes the evolution of big data across New York City to avoid criminal activities. Michael Bloomberg who was elected as a Mayor of New York in 2002, made changes in incorporating big data to governance. New York in the early 1990s was considered as a dangerous place to live once because of the increasing criminal activities. In 1994 then William Bratton took over as a police commissioner of New York City, a management tool CompStat (computerized comparison crime statistics) was introduced which helped in directing more resources to highly rated crime areas. The fire department also got influenced by this and instituted a computerized system to avoid fire risk. This came to a deep analyze of whether the system should be centralized, or the problem should be kept specific to individual departments or should this system only be used in New York?

Analysis

Issue 1: NYPD

When William j. Bratton joined the police department as chief of the New York Transit police, his goal was to bring the crime rate down. To which an emergency call system was initiated which was 911 which helped the department to analyze the patterns of crimes. These reports were on a quarterly based meaning the department got 4 months old data of the crimes which had already occurred. What the department was hoping is to get weekly or daily reports. But the department would require at least 6-12 months to computerize the process which could cause several lives according to Bratton and then Mayor, Maple. This when Compstat was introduced. This tool gave them daily crime statistics and visualizations of where the crime was occurring and what were the patterns. The map used dots to show the criminal activities and size of the dots represents the crime rate of that particular area. The department made sure that there were cops on the dots and based on the size the resources were deployed. This dropped the crime rate to 50 percent.

There are some contradictions here as to whether NYPD should consider the areas where the crime rate is higher, or they should decide on the basis of the severity of the crime. The dots here represent high or low crime rates and not severe or light. Although crime is a crime but which one to solve first is a question.

Issue 2: FDNY

The success of Compstat influenced other departments to include this tool into their system. When the attack of the World Trade Center took place, many people lost their lives. Though FDNY was considered one of the best fire departments in the United States, they lack command and control operations. Several other incidents were observed, to which the Deputy Commissioner, Eimicke analyzed the existing system and categorized the buildings into three forms. A-inspected annually; B-inspected biannually and C-inspected every three years. But this was based on their assumptions and experience and not a reliable solution to the fire problems. So they applied some rules from the CompStat tool from the success of the Police department. They took help from IBM experts who then sent their teams with the inspectors to inspect the building's data and computerize it. They categorized the data based on the crime rate assuming that areas with high the crime rate had more chance of catching fire, but this assumption went wrong as it became difficult for the department to access the data from other agencies because it became difficult for them to read the format.

Different agencies have different ways to describe the buildings and that is why this problem had occurred. The department would have to decode the format of every agency which could consume more time.

Issue 3: 311 Services

NYC 311 was a non-emergency worked just like 911. 311 services were updated to provide Geographical data. This service map went live on the city's website, so everyone can access it and know where the problems are occurring. The disadvantage here was people had to register complaints first and then the government can take any actions. This raised a contradictory question as based on the city's data why the government can't find the problem based on the data they have in their system even before people register their complaints.

To some extent this is right because it might take time to reach the place where the crime is occurring. The solution could be to keep resources ready at every place where criminal activities are high.

Issue 4: MODA and sharing data

Michael Bloomberg, elected as mayor in 2002, declared a Mayor's office of Data Analytics(MODA) which was comprised of a small team that would collect data from 40 different city agencies and compile the information and data collected by those agencies. This task was not easy as agencies had their own way to collect data of the buildings. Soon Michael Flowers' contacted the fire department team to integrate data from other agencies and then FDNY digitized Risk-Based Assessment System to prevent fire. This was a great success. MODA helped in sharing data to avoid cross-sectoral problems.

Recommendations

1. MODA is a fine approach to get the data from across the city agencies to effectively identify crime and public safety like if NYPD uses this approach it can prevent many crimes as compared to the traditional CompStat approach. This gives more transparency to share data citywide. So, this approach should continue.
2. MODA was not the only best approach, the idea behind the dot-map was also a good approach except considering only the size of the dot, the severity of the crime must also be considered.
3. Organizations having a decentralized approach towards data, governance has a very limited scope with several fragmentations which in this case could be considered as the MODA approach where agencies had their own way to analyze the data which made it confusing for the departments. If we take a centralized approach, it has a single process, a single technology to work with such as CompStat which compared the statistics of the crime rates. The correct balance could be achieved when the organizations set standards for every unit and define their needs within those standards and then combine these into a single system.

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