

Where Not To Walk in Cambridge: One Citizen Journalist's Journey Through Snow, Bureaucracy, and Google Fusion Tables

- Saul Tannenbaum

Summary

Record winter snowfall in the Boston area in 2011 posed significant snow clearance and removal challenges. As the snow mounted, its management became a critical issue. Like many municipalities, Cambridge requires property owners to clear their own sidewalks, establishing by ordinance time frames and penalties for non-compliance. Despite having proactive inspections of key sidewalks and a web tool for citizens to report uncleared sidewalks, there was wide spread cynicism that nothing was being done and that the city was failing.

Using complaint data and public record information for a citizen journalism project, Saul Tannenbaum mapped complaint data using Google fusion tables, while also estimating how long it took the City to respond to a complaint over the course of the winter.

The maps that sparked the much discussion, both positive and negative. However, the project aimed to speak in the context of a larger discussion about how Cambridge approaches technology and data. This work provided interested City Councilors a specific example of the advantages of open data and help advance their agenda.

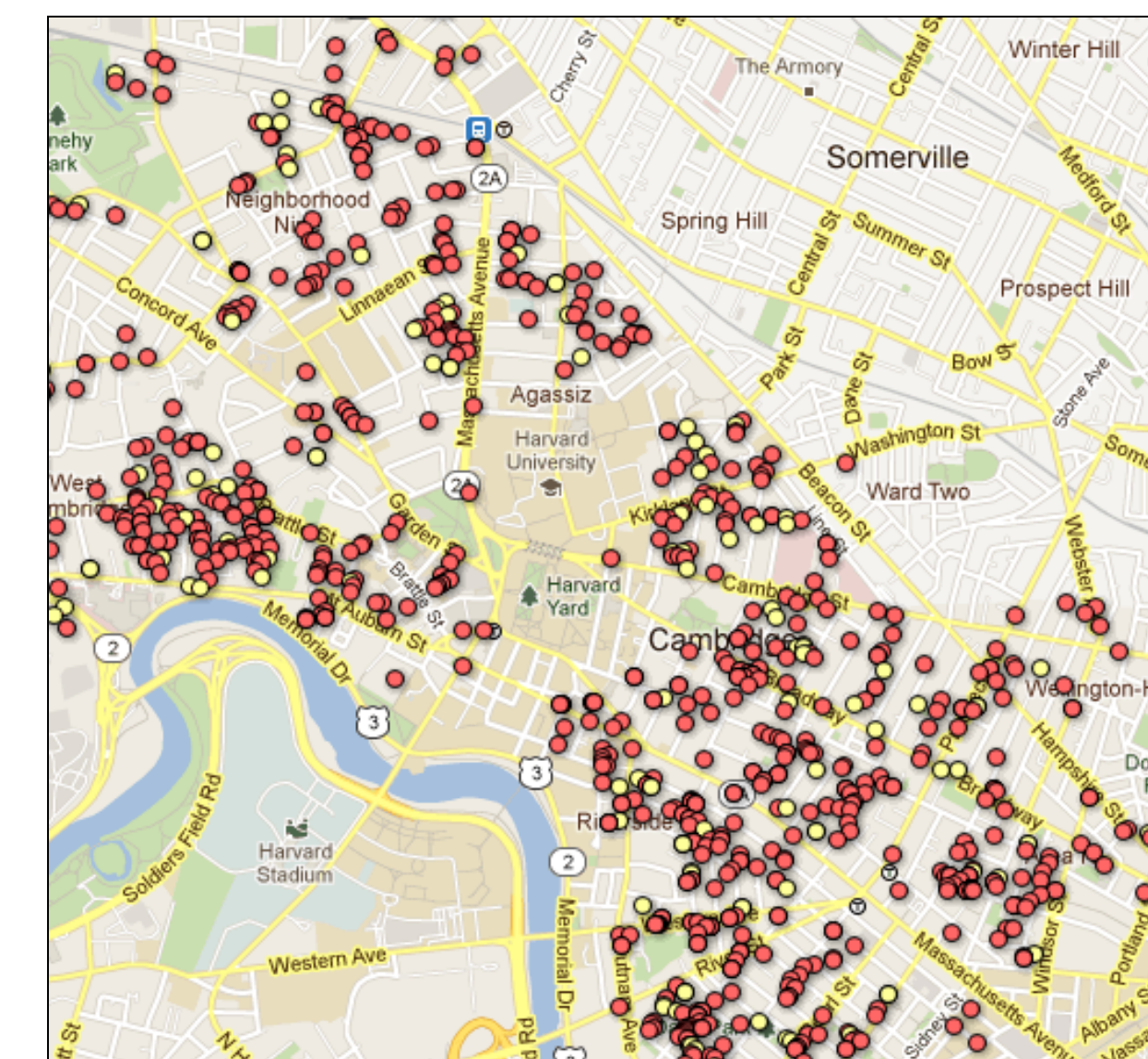
Process and Methods

- Data released from the Dept. of Public Works through Public Records Request
 - Requests made via email with quick response time
 - Data included; complaints filed, fines levied, and elapsed time to address complaints
- Data was then entered into Google Fusion Tables and Google Spreadsheets
 - Google Fusion Tables
 - Allow for geocoding to map the locations of each data point
 - Also allow data points to be given its own customizable pop-up
 - Creates an html code to embed data maps onto web pages
 - Google Spreadsheets
 - Allow sophisticated graphing of data, creating bar charts, line graphs, etc.
- Reports published to web for Cambridge Community Television
 - Allows for public access and interpretation of data

Results

Using Google Fusion Tables and point-based mapping techniques, the study visually represents complaint data acquired from the City Council order and public record.

Google fusion tables

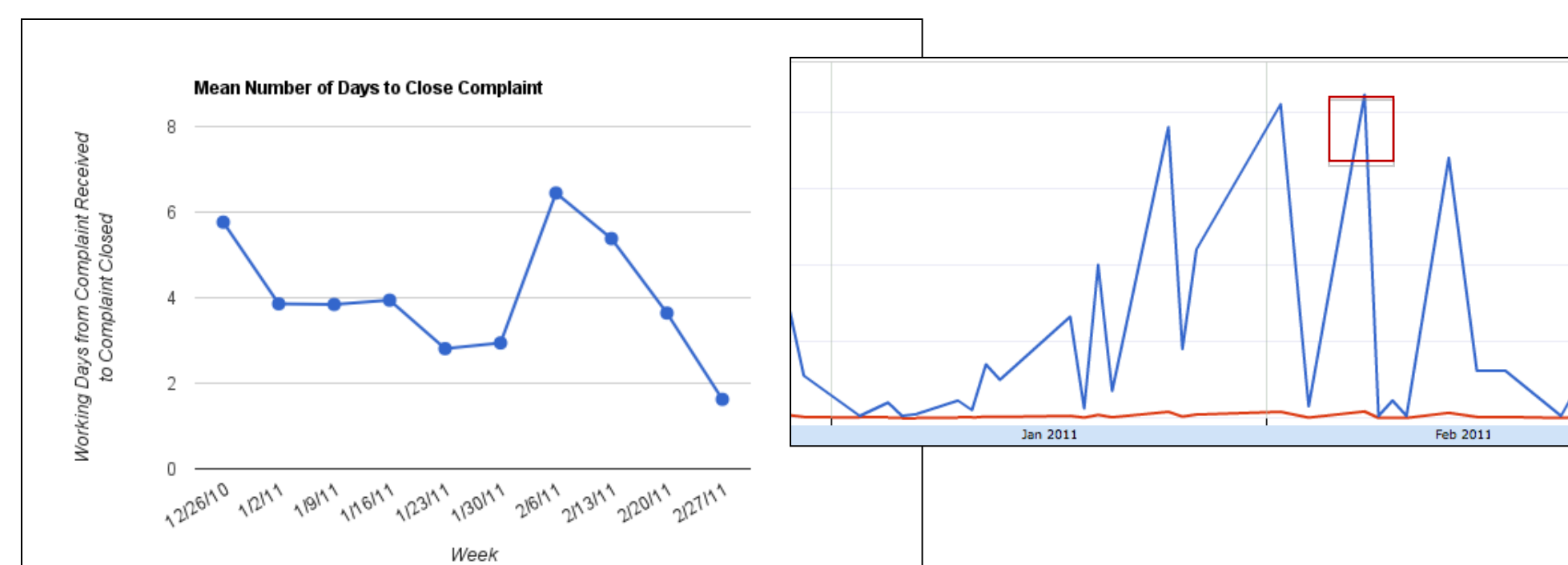


- - red dots represent violations
- - yellow dots represent violations being contested

"Cambridge officials issued 1216 tickets to 1018 distinct addresses for unshoveled sidewalks through February 24th - (Department of Public Works)

"A total of \$58,950 in fines have been issued, with \$50,550 of that being uncontested."

The DWP citation information was then used to estimate how long it took the City to respond to a complaint over the course of the winter. Certain time periods yielded slower response times.



The data was also used to graph the frequency of citations across the winter months. "On their busiest day, February 4, 2011, DPW inspectors issued 169 tickets resulting in \$8450 in fines"

Conclusions and References

Filing Complaints

- Most Complaints filed via Cambridge DPW Snow Removal web tool
 - Form is overly complicated and requires a lot from the user
 - There is no feedback system or way to check on status of complaint
 - Fails to incorporate new cell phone and web technologies
 - City Staff had to take web reports and re-enter them into separate system where complaint could be processed
- Other Complaints made via telephone
 - No uniform phone number for DPW complaints

Addressing Complaints

- Slow response to complaints in early winter
 - Overall, City response improved and was satisfactory

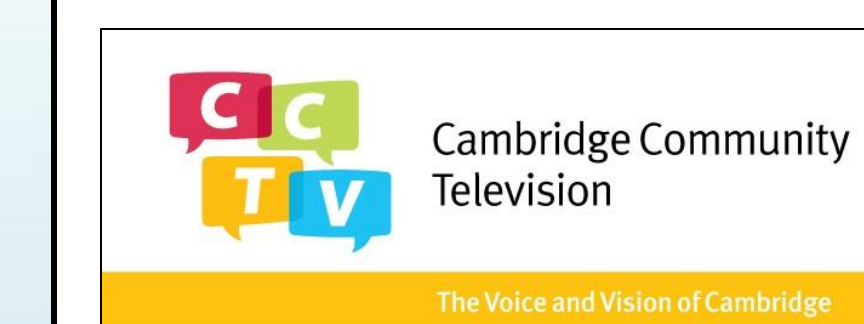
Suggestions for Improvement

- Simplify the Complaint System
 - Snow removal complaint tool should be found on city website
 - Create a uniform system for filing any type of DPW complaint
 - Provide a single phone number and a single web tool
- Cambridge should begin adopt new technologies into reporting system
 - Boston uses smartphone apps, issues a tracking numbers, and sends an email once each complaint is resolved
 - Publish the list of fines levied in an easily understood format
 - Mapping creates a visually understandable depiction
 - Data allows Cambridge to react more efficiently and identify problem areas

"As of January 2012, Cambridge residents can report unshoveled sidewalks via Cambridge's iReport smartphone application."

Acknowledgements and Contact Information

Acknowledgments:



NeighborMedia, Cambridge Community Television:

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Cambridge City Council Councilor - Leland Cheung

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