

CLICKS TO CIVIC SERVICES: ADVANCING BOSTON'S WEB ANALYTICS STRATEGY

City of Boston | Department of Innovation and Technology

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Keywords:

Open data portal, Google Analytics, competitor research, roadmap building, user exploration

Summary:

To build upon the existing web analytics strategy at the City of Boston, Manasa Jagadeesh and Ronith Ranjan implemented Google Analytics onto pages that did not have them. Manasa explored the new best practices and guidelines for web analytics with the change implemented in Google Analytics 4. She created a roadmap for future usage and improvements that incorporates the best practices she identified. Ronith focused on Analyze Boston, an open data portal with crucial information from city services. He conducted some initial user exploration on the data collected. He also organized some competitor research that looked at existing open data portal in other cities to identify what features and datasets should Boston consider.

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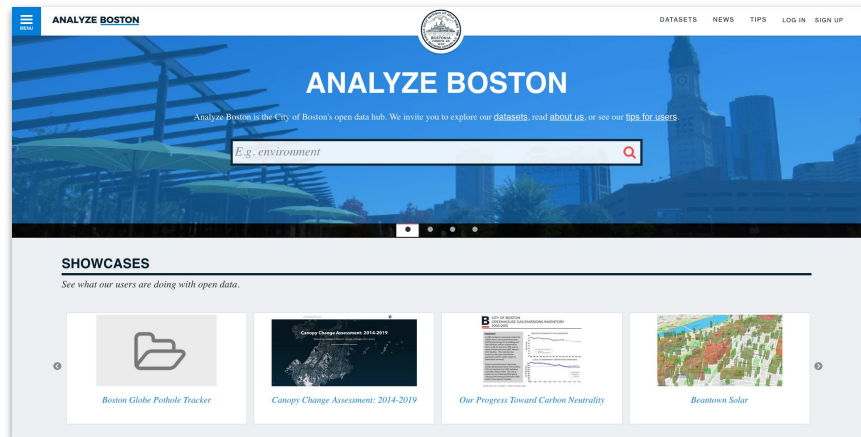
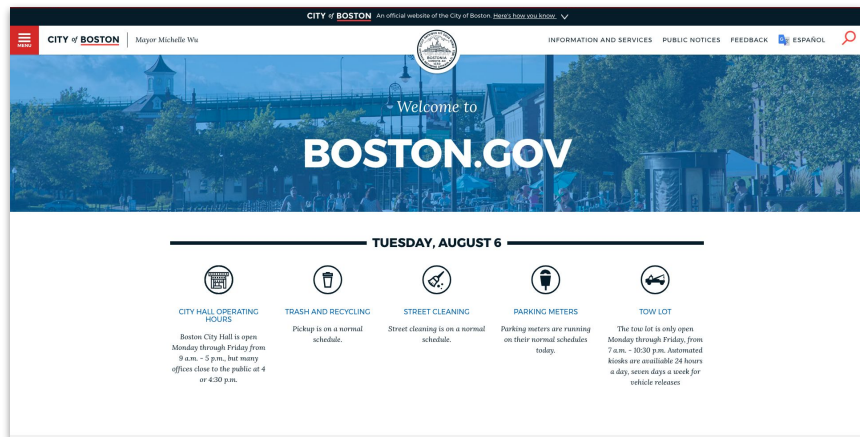
University of Virginia
Computer Science +
Political & Social Thought

2.07 MILLION

page views for Boston.gov in one month (July 2024)

BACKGROUND

- Product management fellows for Boston Digital Services + Data & Analytics
- Improve user experiences for residents and build a more effective government



How can we **leverage** our analytics capabilities to gain **insights** on how Boston residents use our digital services?

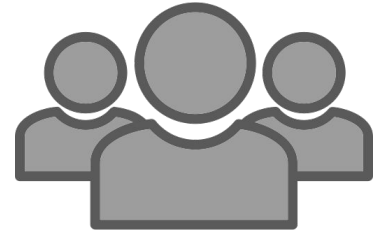
PROBLEM SPACE



Unexplored analytics
opportunities

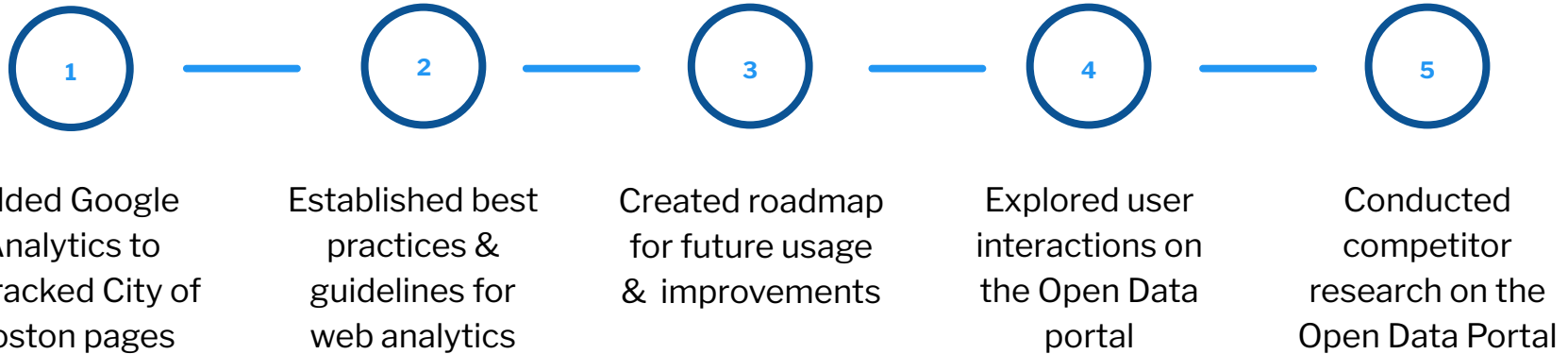


Insufficient
documentation



Unspecified
long-term strategy

ACHIEVEMENTS



UNDERSTANDING BEST PRACTICES

- Assessed different needs of teams that “own” each web page
 - Form based pages vs Information heavy pages
- Different levels of customization offered by Google Analytics 4
 - Default, recommended, and custom events
- Promote reuse across various city properties
 - Using GTM to define events we want to track



FROM BEST PRACTICES TO A ROADMAP

Assess needs



Prioritize
different kinds of
metrics

Levels of customization



Baseline features fit
most needs

Promote reuse



Track events in
Google Tag
Manager

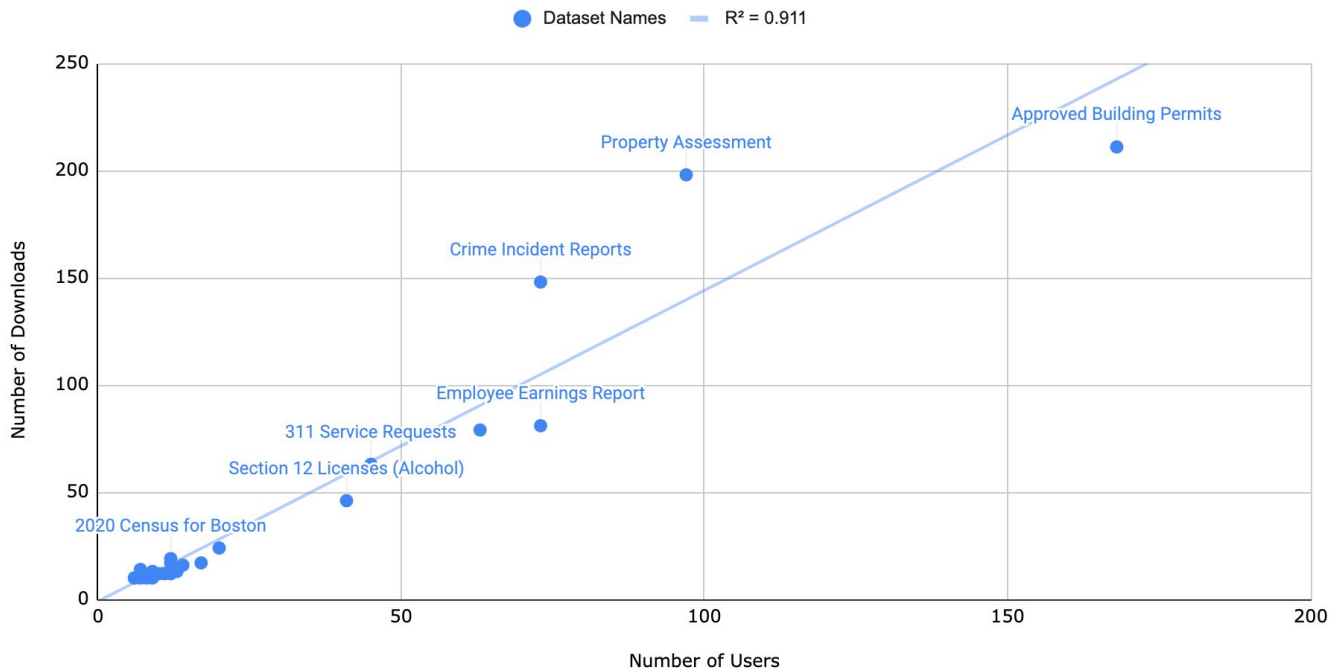
FROM BEST PRACTICES TO A ROADMAP

Web Analytics Roadmap

1. Getting Started
2. How to use Analytics in your area of work
 - a. Examples
3. FAQs
4. Best Practices
5. Setting up Analytics for different types of pages
 - a. Form-based pages (Eg: Registry, Permits and Licenses)
 - b. Information heavy pages (Eg: boston.gov)
6. Resources
7. Tutorial: Getting Google Analytics set up for your page
 - a. Setting up the Google Analytics property
 - b. Setting up the corresponding Google Tag Manager
 - c. Connecting GA4 and GTM
 - d. Adding a new event tag in GTM
 - e. Testing a new tag in GTM
 - f. Viewing events in GA4 reports

INITIAL USER EXPLORATION

Analyze Boston: Total file downloads vs Total users



INITIAL USER EXPLORATION

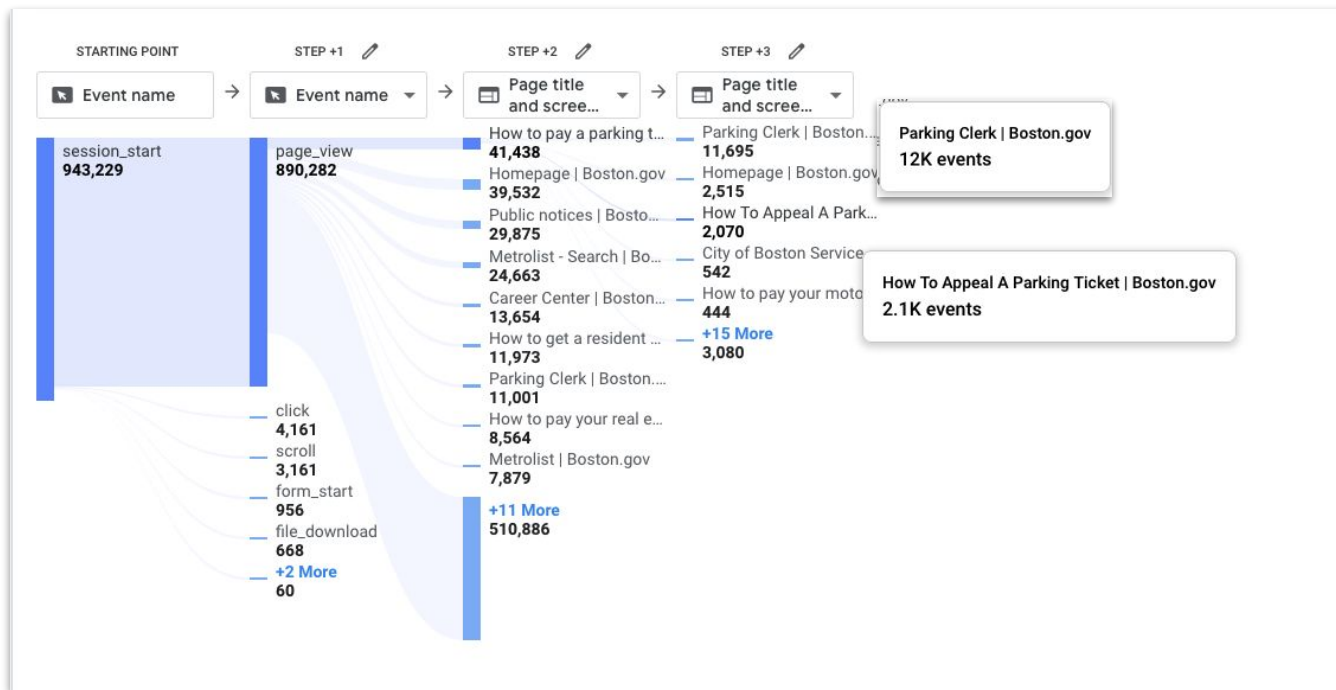
- High download rate relative to total user visits

The screenshot shows the 'ANALYZE BOSTON' website interface. The breadcrumb trail is 'Home > Organizations > Assessing Department > Property Assessment'. The left sidebar features a 'PROPERTY ASSESSMENT' section with a house icon and 16 followers, and an 'ASSESSING DEPARTMENT' section with a bar chart icon. The main content area is titled 'PROPERTY ASSESSMENT' and includes a description of the dataset, its identifiers (PID, CM_ID, GIS_ID, ZIPCODE, and MAIL_ZIPCODE), and a note about the availability of documentation. Below this, the 'DATA AND RESOURCES' section lists several datasets with 'EXPLORE' buttons: Property Occupancy Codes, Property Assessment FY2024, Property Assessment FY2024 Data Key, Property Assessment FY2023, and Property Assessment FY2023 Data Key.

The screenshot shows the 'ANALYZE BOSTON' website interface for the 'CRIME INCIDENT REPORTS (AUGUST 2015 - TO DATE) (SOURCE: NEW SYSTEM)' dataset. The breadcrumb trail is 'Home > Organizations > Boston Police Department > Crime Incident Reports (August 2015 - To Date) (Source:...)'. The left sidebar features a 'CRIME INCIDENT REPORTS (AUGUST 2015 - TO DATE) (SOURCE: NEW SYSTEM)' section with a shield icon and 19 followers, and a 'BOSTON POLICE DEPARTMENT' section with a police badge icon. The main content area includes a description of the dataset, its purpose, and a note about the data's origin and update process. Below this, the 'DATA AND RESOURCES' section lists several datasets with 'EXPLORE' buttons: Crime Incident Reports - 2023 to Present, Crime Incident Reports - 2022, Crime Incident Reports - 2021, Crime Incident Reports - 2020, and Crime Incident Reports - 2019.

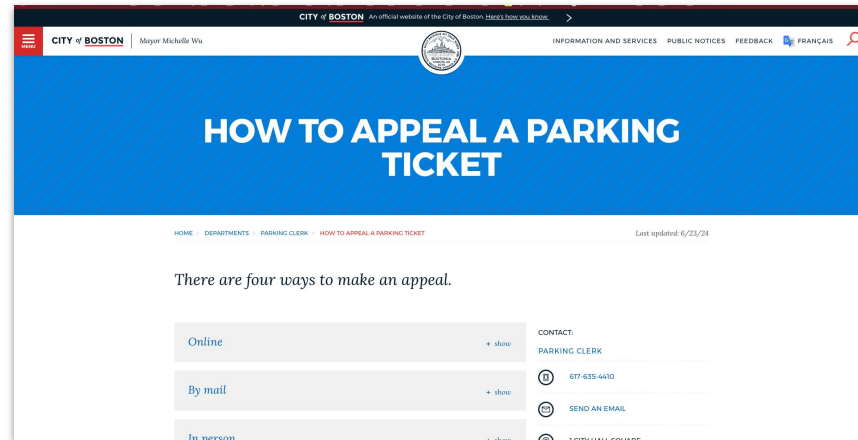
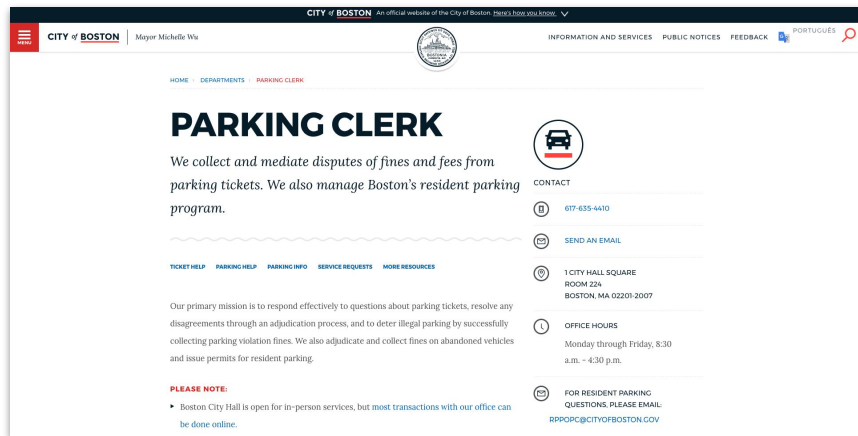
INITIAL USER EXPLORATION

- Boston.gov — Path Exploration



INITIAL USER EXPLORATION

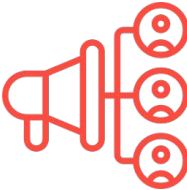
- Pages highly sought out by users \Rightarrow pages related to parking tickets



INSIGHTS FROM COMPETITOR RESEARCH

- Current datasets cover widespread number of crucial city services
- Boston has implemented automated data uploads for regular updates
- Consider publishing web analytics information on the open data portal
- Consider adding more “fun” oriented datasets like DataSF (film locations) and NYC (squirrel sightings)
- Consider increasing community engagement events to increase showcases

NEXT STEPS: LEVERAGING ANALYTICS



- Identify the most essential digital services based on user engagement
- Targeted outreach strategy for user segments with low engagement
- Build a comprehensive analytics strategy beyond Google Analytics

ANALYTICS INCREASES SERVICE QUALITY

- Not enough to just put out information about digital services online
- All government services should have ways to measure digital engagement
- Better government requires data to inform decision-making
- Analytics + user research can offer deeper insights
- Personally – working in govt means working with deeply committed, talented people

Thank you!

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Julia Gutiérrez
Anna Stoneman
Stephanie Cariello
Stella Ubaha
James Duffy

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Yuyang Zhong
Cassie Rubio
Ariana Soto

QUESTIONS

- What would you focus on if you had one more week in the fellowship?
- What is one thing you would want to measure among Boston's digital services that isn't being currently measured?
- What has been the most surprising aspect of working in tech in government?