



# **BAY AREA NEWS COLLECTIVE**

**Collaborative Project Report**  
December 2020 - October 2021

**Published**  
December 2021

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# INTRODUCTION

## Bay Area News Collective

**Project Type:** Newsroom Collaboration, Community Research, Spatial Analysis

**Funding:** Google GNI Innovation Challenge

**Website:** [bloom.li/BayAreaNewsCollective](https://bloom.li/BayAreaNewsCollective)

This report documents the activities from the Bay Area News Collective, a collaborative project facilitated by Bloom Labs with seven newsrooms to assess geographic representation of local news in California's San Francisco Bay Area region.

The project identified and responded to patterns of local news representation, or lack thereof, through the perspective of personal experiences in the communities and current geolocated news coverage. The project's collaborative approach has enabled us to leverage patterns that are more inclusive of news coverage as we bring together insights from multiple newsrooms and regions in the Bay Area into one space simultaneously. The resulting outcomes of the project were actionable and valuable for newsrooms and residents alike, guiding the way for more diverse and equitable news experiences.

This report covers the entire year-long project, representing analysis and lessons from technology and research activities. During the first half, newsroom partners began geolocating and categorizing their local news stories collectively, which helped produce analytics reports ([Page 8](#)). In parallel, we interviewed residents and organizations in the local communities to discuss their personal experiences with local news ([Page 30](#)).

During the second half of the project, our team designed and implemented an experiment ([Page 51](#)) with the newsrooms from these gathered insights. The experiments addressed the current news representation challenges and opportunities in the Bay Area.

## Partners

### Bloom Labs

[bloom.li](https://bloom.li)

Bloom Labs is a spatial journalism startup focused on improving the accessibility and capability of journalism for local communities. A specialized team was formed at Bloom for this project to be responsible for managing the newsroom collaboration, planning and executing community-based research, and designing and developing technology for the newsrooms.

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### Bay Area Newsrooms

The project's seven newsroom partners were chosen based on their dedication to covering news about local communities in the Bay Area. They were responsible for geotagging their news stories, implementing location-based experiences for their internal team and readers, and sharing how these activities impacted their goals throughout the project.

**The Mercury News**  
[mercurynews.com](https://mercurynews.com)

**EAST BAY TIMES**  
[eastbaytimes.com](https://eastbaytimes.com)

**Marin Independent Journal**  
[marinij.com](https://marinij.com)

LOCAL NEWS  MATTERS  
[localnewsmatters.org](https://localnewsmatters.org)

SAN JOSE  
**spotlight**  
[sanjosespotlight.com](https://sanjosespotlight.com)

**KQED**  
[kqed.org](https://kqed.org)

 **BCN**  
BAY CITY NEWS  
[baycitynews.com](https://baycitynews.com)

## Data Policy

The project team wrote a Data Collection and Reporting Policy due to the chance for sensitive or competitive information to be gathered or made available to other partners or the public. This report acknowledges the Policy's requirements and recommendations to ensure all parties involved in the project approve its published data, information, and media.

The Policy ensures that all project activities are conducted legally and ethically according to the internal requirements and recommendations of the organizations involved, such as newsroom privacy policies and grant funding eligibility. The Policy explains how various activities expected during the project will responsibly handle data access, collection, presentation, documentation, and reporting. Any person or organization — staff, volunteer, partner, or collaborator — who contributed was required to agree to the Policy upon their recruitment.

This policy is available for review at:

[assets.bloom.li/documents/banc/BANC\\_DataCollectionReportingPolicy.pdf](https://assets.bloom.li/documents/banc/BANC_DataCollectionReportingPolicy.pdf)



# GEOTAGGED NEWS

## Overview

STORIES

8,204

NEIGHBORHOODS

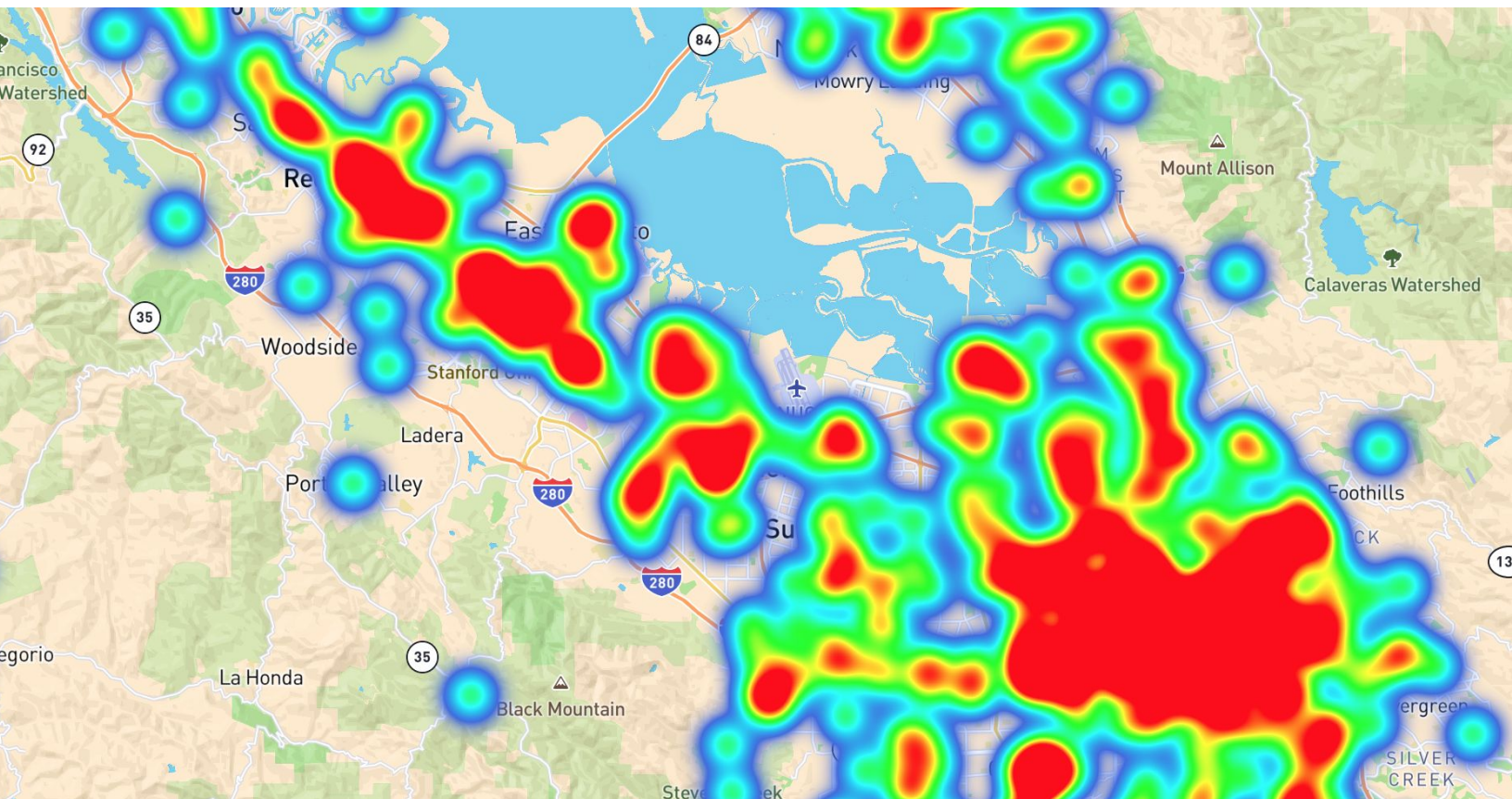
484

CATEGORIES

26

### STORY COVERAGE MAP

Regions colored in red had a higher frequency or quantity of stories.





## Overview

**The project focused on geotagging individual stories to help piece together a geographic picture of news representation in the Bay Area.**

This report shows our findings from geotagged stories published between December 1, 2020, and September 30, 2021, across the seven newsroom partners in the Bay Area News Collective.

During this time, the primary activity of newsrooms was to geolocate their news stories based on places written about, such as street addresses and regions. Geotagging the stories is a simple yet critical step towards connecting the digitally-produced story to a real-world place where it came into being. The collective approach of this project combined thousands of geotagged stories across newsrooms to bring local coverage patterns to life across sources, topics and neighborhoods.

Overall, the newsrooms geotagged 8,204 stories that represented 484 neighborhoods and 26 categories. The project's team analyzed this data on a geographic macro-level (i.e., county or city) and micro-level (i.e., street or neighborhood) and across subject areas. The project's collective approach and attention to detail have not been captured before with local news, requiring many of the newsrooms to begin collecting the location data during the project.

The resulting viewpoint has been essential to the project's research and provides a new way to explore and learn about the representation of communities in the Bay Area and elsewhere. As you'll discover further in this report, the project successfully demonstrates how news can be geotagged continually, efficiently and effectively across small and large newsrooms to support collaborative insight and strategies.

## What Have We Learned?

"Awareness of collective coverage is eye-opening because day-to-day we are often narrowly focused on our own organization..."

*Newsroom Partner*

- 1** Over 8,200 stories have been geotagged since December 2020, which illustrates how this geographic area is receiving comprehensive news coverage on various news topics.
- 2** Most geotagged stories were categorized under law and government (57%) and sensitive subjects (32%). These categories are often location-specific, highlighting how other topics like education and public health are more nuanced regarding location; we investigated how these broader local subjects could be analyzed better by location.
- 3** The Bay Area is far-reaching when it comes to news coverage, and this project demonstrates how geotagged news coverage can also be examined by county, beyond city and neighborhood level. This variety allowed newsrooms to examine specific areas and discuss their local news coverage experiences.
- 4** Collaboration is possible through the lens of geotagged news. Many of the newsrooms have geotagged a variety of stories in the same and different locations of the Bay Area, providing a complementary opportunity to connect editorial efforts to form a full picture of journalism in the Bay Area.
- 5** The project involved multiple newsrooms with various staffing resources throughout the year. As a result, geotagged news appeared in larger or smaller quantities at certain periods of time. In addition, not all kinds of news stories could be geotagged when a location was not clearly apparent. The amount of geotagged news covered in this project may not reflect the totality of news coverage for a certain topic or location.

## Methods

### Data Entry

Most participating newsrooms were equipped with the [Bloom for Publishers geotagging plugin](#) provided in their WordPress Content Management System (CMS). The plugin allowed for their editorial team to geotag news stories that discussed places in the Bay Area.

Stories were tagged with subject area categories in two ways: 1) Automatically using Google's Natural Language API by passing the full text of the article to the [Classify Text](#) tool; and 2) Manually verified by an intern hired for data entry tasks during the project. The categories available included those listed in Google's standard [Content Categories](#).

### Analysis

- Data analysis was done using the available data provided by the geotagged stories. Stories that were not geotagged were not considered.
- Bloom's dashboard was used as an initial starting point to analyze the stories, but also allowed for exporting the data to place into various GIS analysis tools. Exported data was provided in a CSV-format file that was segmented by timeframe, newsroom, categories, latitude and longitude, neighborhood, postal code, city and county.
- Descriptive analysis (e.g. mean, median, mode, standard deviation, etc.) was run by the most frequent and least frequent data in the dataset — mainly by newsrooms and location.

## Methods

### Classification Decisions

Stories were classified according to Google's standard Content Categories, which simply provides labels for categories that are matched to story topic(s). Google does not provide definitions for the labels or examples of what type of text is applicable. Therefore, decisions around classification were made with the best estimate of the person or tool performing data entry.

Additionally, our data in the following pages uses the category labels to explain the depth and breadth of coverage by topic. To help contextualize what these labels mean, a list of popular categories are provided with examples in the next column and on subsequent pages.

### Classification Examples

#### Sensitive Subjects

Stories about missing people; Homicides, drownings, or death-related stories; Domestic violence; Abuse policy and funding; Racism; Gas or oil spill coverage and prevention; Natural disasters, earthquakes.

#### Law & Government

Stories about elections, campaigning, and political advocacy; Legal-related agreements and events; Advocacy for better living standards; Company-specific or location-specific wages; County-specific vaccination rules, redistricting.

#### People & Society

Stories about culture; Advocacy, community and local groups.

#### Business & Industrial

Stories about construction and renovations; local businesses.

## Data Analysis

### Story Frequency

The chart below shows the number of stories geotagged per month by the newsrooms during the year-long project. The numbers below the chart reflect the distribution of stories across each newsroom.

*Note: The increase of stories starting in May was due to the addition of Bay City News as a newsroom partner in the project.*



THE MERCURY NEWS	3,259	SAN JOSÉ SPOTLIGHT	352
BAY CITY NEWS	2,652	LOCAL NEWS MATTERS	259
EAST BAY TIMES	764	MARIN INDEPENDENT JOURNAL	176
KQED	742		

## Data Analysis

### Story Classification

The categories listed below were the most prominent categories matched with stories during the project's timeframe. The percentages reflect the ratio of stories that were matched to that category compared to the total number of stories provided.

It was possible for a news story to be matched with multiple categories. Therefore, the data represents a non-competing, networked point of view.

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**LAW & GOVERNMENT**  
Crimes, political advocacy, legal decision-making

57.2%

---

**SENSITIVE SUBJECTS**  
Homicides, domestic violence, environmental disasters

32.5%

---

**PEOPLE & SOCIETY**  
Culture, social advocacy, community groups

13.7%

---

**BUSINESS & INDUSTRIAL**  
Business operations, transportation, construction

11.4%

---

**ARTS & ENTERTAINMENT**  
Events, music, visual art, performing arts

8.0%

---

**HEALTH**  
Pandemic-related, medical conditions and facilities

7.0%

---

**JOBS & EDUCATION**  
Schools and career resources

5.0%

## Data Analysis

### Story Geographic Diversity

Counties, cities and neighborhoods were tracked when a story was geotagged with geographic data. The lists provided below represent the areas that had the most prominent number of stories in the respective type of region.

It was possible for a news story to be geotagged with multiple locations if the locations were a main part of the story's message. Therefore, the data represents a non-competing, networked point of view.

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#### TOP COUNTIES

- 27%** Santa Clara (2,218)
- 23%** Alameda (1,906)
- 16%** Contra Costa (1,294)
- 12%** San Francisco (1,015)

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#### TOP CITIES

- 17%** San Jose (1,361)
- 12%** San Francisco (1,015)
- 12%** Oakland (975)
- 3%** Berkeley (209)

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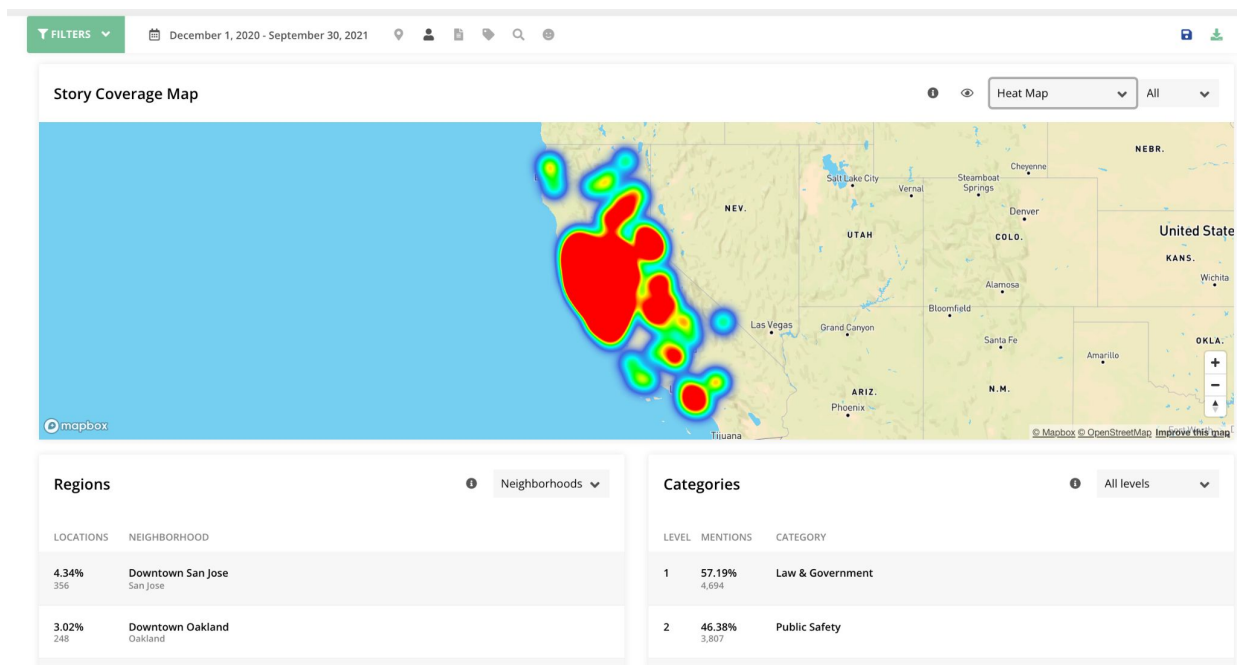
#### TOP NEIGHBORHOODS

- 4%** Downtown San Jose (357)
- 3%** Downtown Oakland (248)
- 3%** Central San Jose (220)
- 2%** Tenderloin (135)
- 2%** Alum Rock (126)

## Data Analysis Dashboard

Newsrooms had access to a dashboard in their Bloom account to view how the content was mapped across all partners or just their outlet(s).

The dashboard featured options to read or filter the content by geographic location such as city, county, and neighborhood, timeframe, categories, and sentiment. Within its interface, data was presented in visual maps and charts, as well as text-based lists. Additionally, the data could be exported and integrated into separate software for analysis.



Screenshot of the dashboard that newsrooms used to view the geotagged stories.



## The Mercury News Data Analysis

In terms of category, the most stories geotagged by The Mercury News were Law & Government and Sensitive Subjects. Stories were published the most within the cities of San Jose, Oakland, San Francisco and Palo Alto.

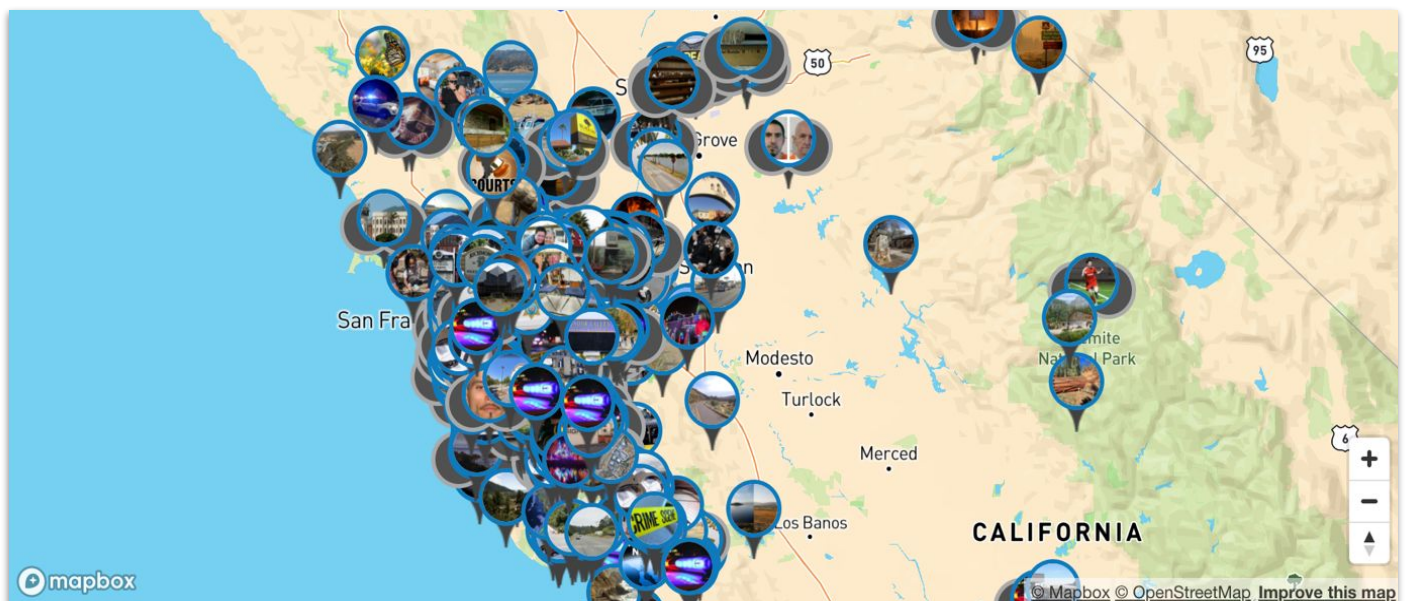
TOTAL STORIES  
**3,259**

LAW & GOVERNMENT  
**55%**

NEIGHBORHOODS  
**334**

SENSITIVE SUBJECTS  
**35%**

CATEGORIES  
**26**



Screenshot of a map that The Mercury News accessed to view the geotagged stories.

## Bay City News Data Analysis

In terms of category, the most stories geotagged by Bay City News were Law & Government and Sensitive Subjects. Stories were published the most within the cities of San Francisco, San Jose, Oakland and Berkeley.

TOTAL STORIES  
**2,652**

LAW & GOVERNMENT  
**63%**

NEIGHBORHOODS  
**234**

SENSITIVE SUBJECTS  
**35%**

CATEGORIES  
**26**



Screenshot of a map that Bay City News accessed to view the geotagged stories.

## East Bay Times

### Data Analysis

In terms of category, the most stories geotagged by East Bay Times were Law & Government and Sensitive Subjects. Stories were published the most within the city of Oakland.

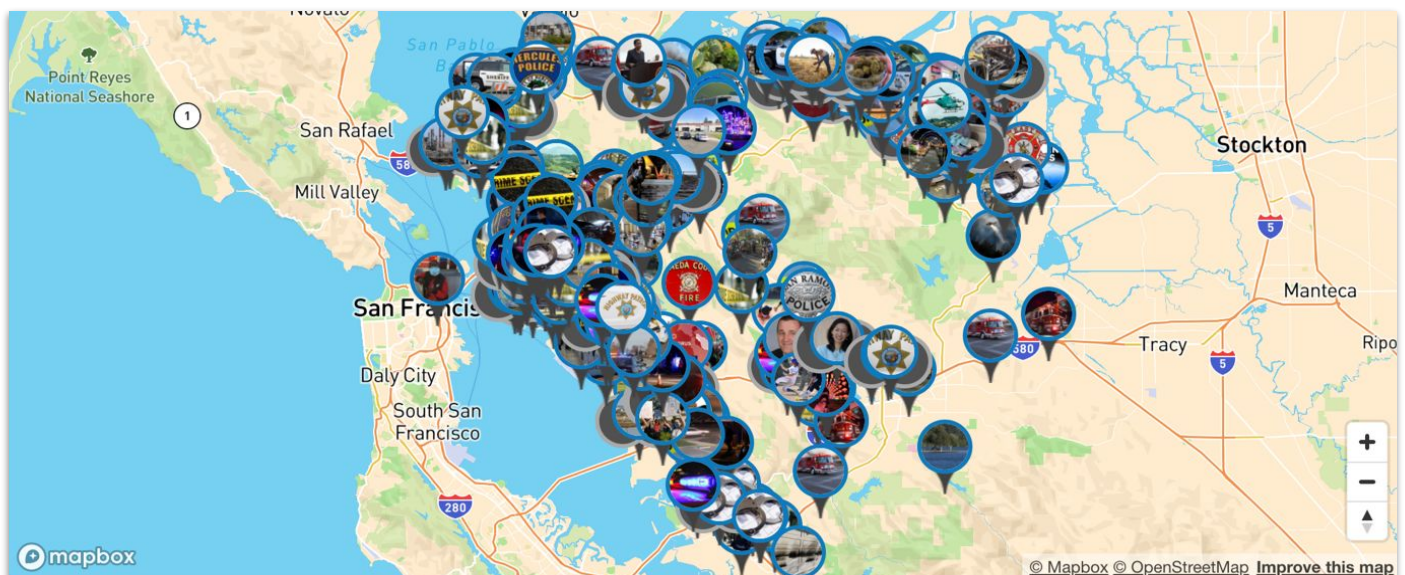
TOTAL STORIES  
**764**

LAW & GOVERNMENT  
**78%**

NEIGHBORHOODS  
**135**

SENSITIVE SUBJECTS  
**51%**

CATEGORIES  
**26**



Screenshot of a map that East Bay Times accessed to view the geotagged stories.



## KQED

### Data Analysis

In terms of category, the most stories geotagged by KQED were Arts & Entertainment and Law & Government. Stories were published the most within the cities of San Francisco, Oakland and San Jose.

### TOTAL STORIES

742

### ARTS & ENTERTAINMENT

26%

### NEIGHBORHOODS

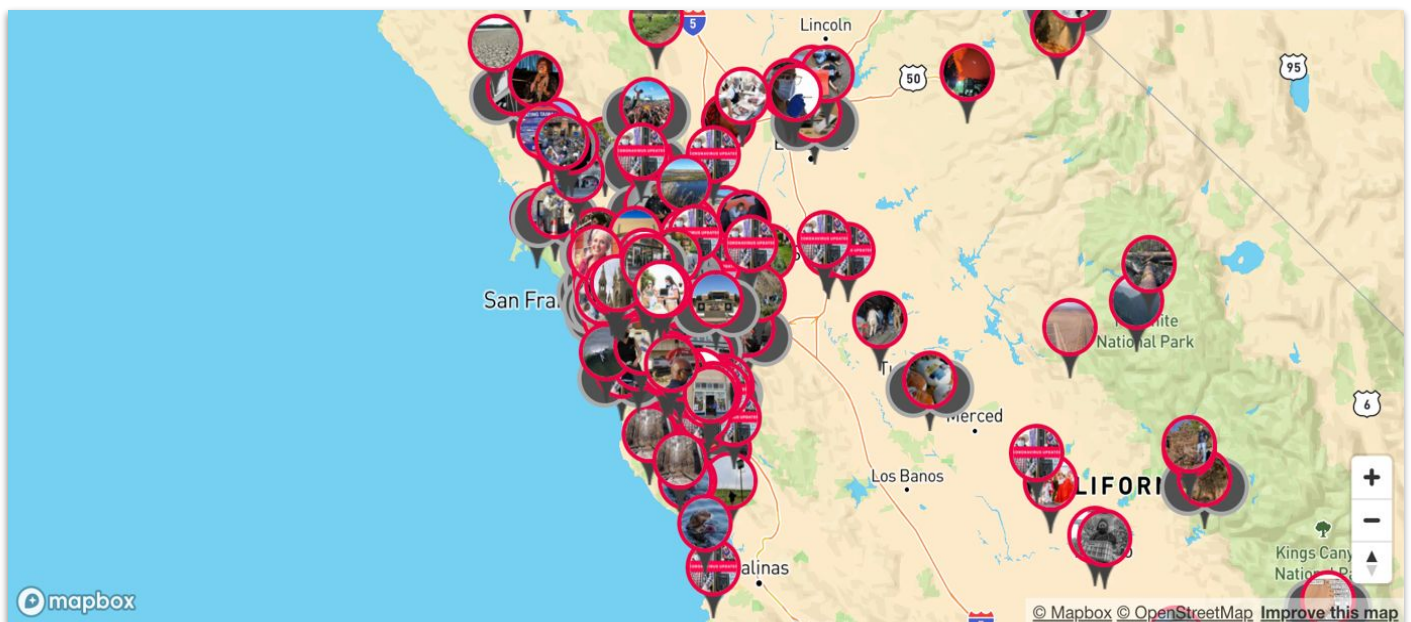
121

### LAW & GOVERNMENT

24%

### CATEGORIES

23



Screenshot of a map that KQED accessed to view the geotagged stories.

## San José Spotlight Data Analysis

In terms of category, the most stories geotagged by San José Spotlight were Law & Government and People & Society. Stories were published the most within the city of San Jose but did extend to other cities within Santa Clara County as well as surrounding regions such as San Francisco.

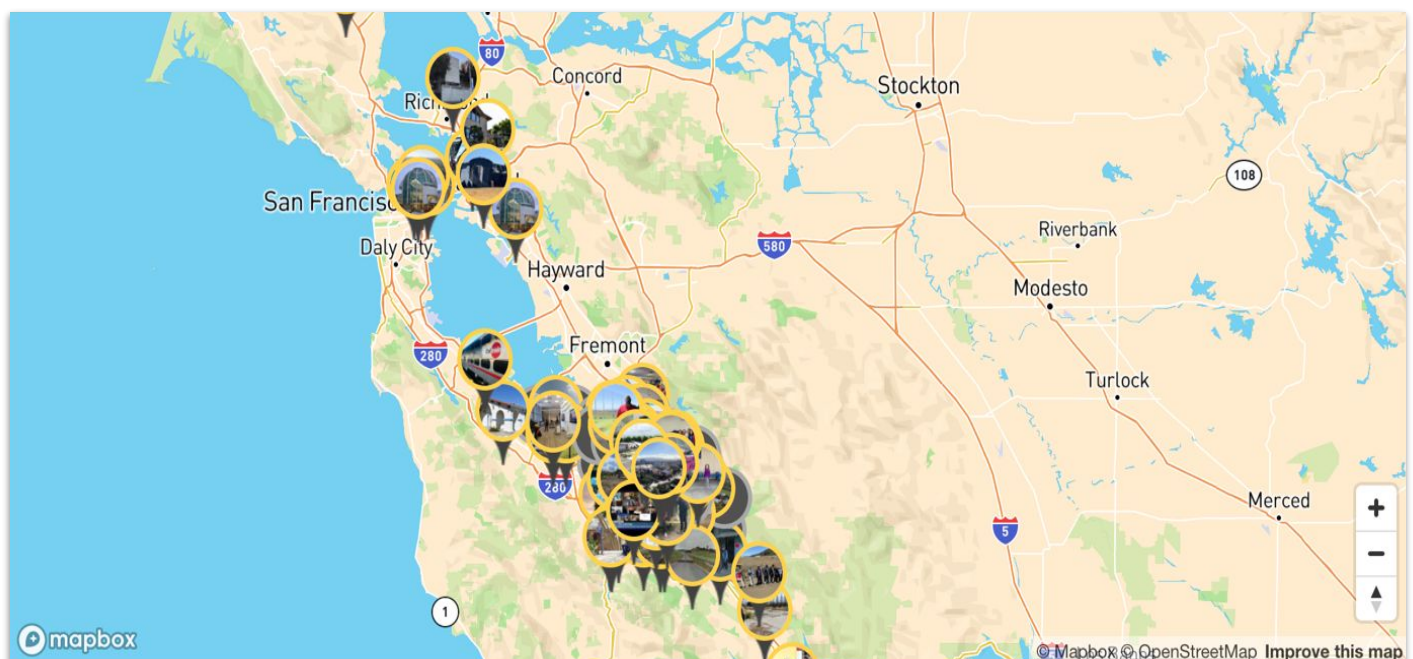
**TOTAL STORIES**  
**352**

**LAW & GOVERNMENT**  
**39%**

**NEIGHBORHOODS**  
**41**

**PEOPLE & SOCIETY**  
**28%**

**CATEGORIES**  
**20**



Screenshot of a map that San José Spotlight accessed to view the geotagged stories.

## Local News Matters

### Data Analysis

In terms of category, the most stories geotagged by Local News Matters were Arts & Entertainment and People & Society. Stories were published the most within the cities of San Francisco, Oakland and Berkeley.

#### TOTAL STORIES

259

#### ARTS & ENTERTAINMENT

44%

#### NEIGHBORHOODS

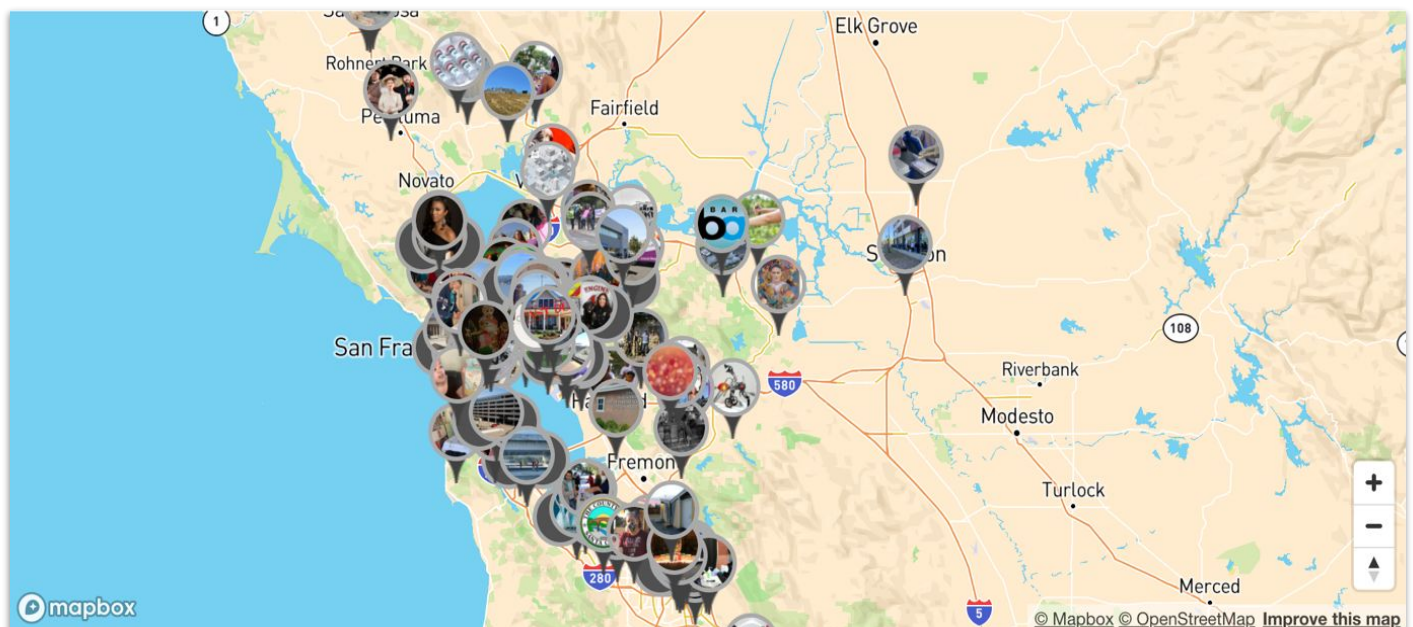
66

#### PEOPLE & SOCIETY

24%

#### CATEGORIES

25



Screenshot of a map that Local News Matters accessed to view the geotagged stories.

## Marin Independent Journal Data Analysis

In terms of category, the most stories geotagged by Marin Independent Journal were Law & Government and People & Society. Stories were published the most within the cities of Sausalito, Novato and Mill Valley.

### TOTAL STORIES

176

### LAW & GOVERNMENT

44%

### NEIGHBORHOODS

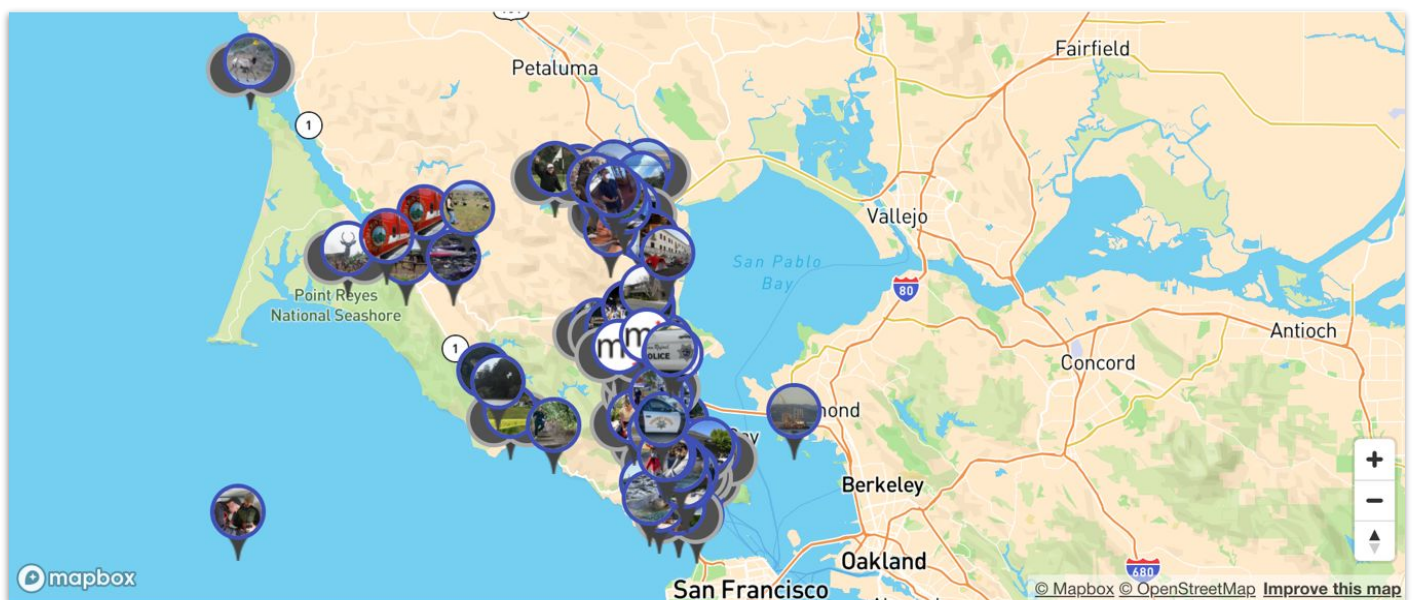
4

### PEOPLE & SOCIETY

28%

### CATEGORIES

23



Screenshot of a map that Marin Independent Journal accessed to view the geotagged stories.



## Reflections

### Analysis Criteria & Approaches

The data analysis primarily involved assessing the quantity and frequency of geotagged stories within each neighborhood, city and county. We highlighted regions that encountered the most or least stories as areas with potential opportunities or challenges, such as underrepresentation.

We considered the number of newsrooms as a factor for gauging which regions may be prospects for cross-newsroom collaboration. Prospective areas had three or more newsrooms regularly publishing stories within a given time range. For example, we found that cities like Dublin and Richmond usually have stories geotagged by at least four newsrooms each month. Similarly, Lafayette had at least three newsrooms publish stories primarily along the highway that runs through the city rather than within the neighborhoods themselves.

Our analysis also explored story categories by location and newsroom. This practice led to discussions about potential opportunities to leverage niche approaches to category-specific collaboration within a particular region. Such opportunities were identified as either supporting existing news coverage or starting new editorial assignments in an area by streamlining resources across newsroom partners.

Overall, this viewpoint of analysis assisted the project by allowing us to efficiently identify and communicate the breadth and geographic diversity of news coverage in the Bay Area amongst the participating newsrooms. This insight identified and prioritized potential opportunistic areas for the project's efforts to focus more closely on moving forward.



## Reflections

### Discussions with Newsrooms

Each month, participating newsrooms engaged in an hour-long discussion about the latest geotagged data and other activities that had occurred recently or were coming up. Two internal reports about recent geotagged stories were made available during meetings in March and May, inviting us to discuss the data more thoroughly. Executives and product managers from the newsrooms joined the conversation with the project's team to review the stories on a map and discuss particular regions with varying editorial activity.

We found these discussions highly engaging, optimistic and fun as they were kept open to various forms of contribution. To encourage virtual hands-on participation, we used Jamboard, Google's whiteboard tool, for people to add notes for ideas, suggestions, comments and experiences regarding their insight about a particular region, or opportunity for readers, partnerships, and funding. For example, one person mentioned how a journalism program at a local university assigns students to report about a particular area in the Bay Area, which could be an opportunity for the project's reports to influence.

"What other types of local data would help fill out this map?"

"It would be nice to **combine news organization footprints** with the region's population so we can visually see the coverage areas..."

*Responses from representatives at the partnering newsrooms*

## Reflections

### Discussions with Newsrooms (continued)

Many newsroom representatives contributed their local insight to specific regions that the reports highlighted, such as what parts of cities contain residential and commercial districts that may skew its coverage and why particular neighborhoods may have less news activity. Representatives were even surprised in some cases where they expressed how they thought a specific area was underrepresented when the data showed that one or multiple newsroom partners covered it very well. Overall, we used this time to assess the reality of their coverage and openly discuss uncertainties or concerns, which was supportive context that guided the project's approach.

Despite clear communication and visualizations, we did find it challenging to use the data to pinpoint underrepresentation confidently. We agreed that the project must incorporate other data or perspectives to confirm the report's outcomes better. As you'll find in the Resident Interviews section of this report, the project's efforts to interview community members were precisely the type of context needed to complement the story location data. We were excited to continue collecting data and combining it with other information from our partners and the local communities to learn more about representation in the Bay Area.

## Reflections

### Changes and Challenges to Data Collection

The tools and routines that the newsroom partners used to collect location data developed throughout the project. We learned about certain limitations in newsroom participation or capability and responded to feedback from their editorial teams.

#### Improved Geotagging Capability

Before April, the geotagging tool was limited to specific locations, such as a street address, intersection, park, or other places that referred to a particular point on a map. After meeting with newsrooms in these first months of the project, we realized many stories were being excluded because they were written about larger regions, such as entire neighborhoods, cities, or counties. Therefore, we expanded the capabilities of the geotagging plugin to accept these larger regions. In conclusion to this update, we saw an uptick in the number of stories geotagged and were able to conduct a more thorough analysis about those regions.

## Reflections

### Changes and Challenges to Data Collection (continued)

#### Inconsistencies with Geotagging

The primary task for the newsroom partners was to have their editorial teams manually geotag stories into the project's dataset. There were delays or gaps with geotagging contributions in a few instances due to either lack of staffing resources or technology complications. For example, two newsrooms chose not to integrate the geotagging plugin because they used a legacy CMS or their editorial team was too dispersed to coordinate on a temporary project. One newsroom had hired an intern during the summer to assist in double-checking the geotagged stories and then became unavailable as the fall season began, complicating staffing assignments. These types of challenges were expected during the planning of this project and are understandable considering many other requirements in the editorial workflow and unique newsroom needs.

However, the project relied on this geotagged data to conduct analysis, run surveys, develop experiments, and generate reports. Therefore, consistency of the contributed stories or transparency in our decisions and conclusions was critical in ensuring the project moved in a reliable and reasonable direction. The project team did find it necessary to continually be aware of inconsistencies every month and notify newsroom partners when their contribution would change.

Gradually, we found more consistent participation as the project began to generate conclusions from the data. We found it helpful to plan quarterly analytics reports that shared a synthesis of all the data contributions within that period, and monthly meetings to discuss upcoming activities and progress or challenges encountered that month. The experiments and surveys in the second half of the project were also helpful in making their contributions more tangible as they became more publicly accessible to readers outside of the project.



# RESIDENT INTERVIEWS

## Overview

In April, interviews were conducted with residents throughout the Bay Area to obtain qualitative insight about representation of local news. These were influenced by the findings from the geotagged stories, guiding the project team to focus specifically on regions with varying amounts of news coverage or diversity.

The interviews allowed the project's team to learn from residents about their local news accessibility and equity, different types of coverage gaps, and diversity of information sources. In general, the questions were prepared and moderated with a goal to understand how people feel represented and underrepresented, what makes them feel that way, and how their trust and behaviors change across different local sources, information, and contexts.



### General Specs

Interviews Conducted: **19**  
Dates: **April 3rd - 24th**  
Total Minutes: **588**



### Interview Distribution by County

Alameda: **4**      Marin: **1**  
Santa Clara: **7**      San Mateo: **5**  
Contra Costa: **2**



### Years Lived in Bay Area

Less than a year: **1**  
1-5 years: **2**  
10-20 years: **8**  
20+ years: **6**



### Ethnicity

Asian / Pacific Islander: **9**  
White: **8**  
Mexican / Native American: **1**  
Black or African American: **1**



### Gender

Male: **7**  
Female: **11**  
Genderqueer: **1**



### Ages

18 to 34: **14**  
35 and older: **2**  
61 and older: **3**

## Interview & Analysis Methods

### Planning Interviews

This project took place during the COVID-19 pandemic, which greatly limited our capabilities to conduct focus groups, interviews and other research methods that are normally in-person. Therefore, while preparing for how we would include residents in the research portion of this project, we drafted a strategic plan that acknowledged current travel and health recommendations, such as making interviews virtual and surveys digital, while still making space for the community to be in conversation with the project's team. The plan has guided us during the start of the interviews and adapted as we proceeded to learn from the community's response.

### Target Audience

- *Individuals:* Diverse group of residents who may feel underrepresented in local news or who reside in one of the underrepresented or overrepresented regions as found in the geotagged news reports.
- *Groups:* Organizations, businesses, or other groups who connect with these types of residents, such as those with mission statements related to serving minority communities locally.
- *Diversity:* Interviewee diversity should match or be close to the Bay Area population diversity distribution. We created a spreadsheet that combined population data from the 2019 Census for six counties in the Bay Area, including Alameda, Santa Clara, Contra Costa, Marin, San Francisco, and San Mateo. Each county was given a specific percentage number based on the combined population, which served as a guide and goal for recruiting interviews.

## Interview & Analysis Methods

### Planning Interviews (continued)

#### Scope

- *Initial Goal:* In general, the number of interviews varies based on a research project's goal and the quality and diversity of responses from participants. For this project, not yet fully knowing the community's interest and willingness to participate, we set an initial goal of up to 50 one-on-one interviews.
- *Adjusted Goal:* After the first few were conducted, we decided to lower the goal to 15-20 interviews. Our reasons for reducing the number were that the interviews thus far were consistently insightful and thorough, and that 20 people could sufficiently be represent each county we wanted to be represented. Additionally, this adjustment reduced the time needed to conduct and synthesize each interview, which was limited for this portion of the research.

#### Outreach

- *Partners:* To assist with community outreach and interviews, we partnered with Code for San Jose, a local non-profit group that is part of Code for America. They were chosen based on their consistent presence and reputation for local civic projects with Bay Area communities and organizations. We believed that their position would assist our project to get meaningful local participation. A small group of researchers was gathered from their volunteer network to assist Bay Area News Collective who independently and collaboratively worked to achieve our research interview goals.



## Interview & Analysis Methods

### Planning Interviews (continued)

#### Outreach (continued)

- *Strategy:* The outreach communication strategy focused on connecting with local organizations who would help spread the word about the interview opportunities to their larger audience. This networked approach allowed the small team of volunteers and our project's staff to be most efficient and timely in connecting with local community members. We focused on contacting organizations that serviced the selected counties and target audience that we wanted to primarily hear from.
- *Outreach:* We shared materials, such as a recruitment form and social media graphics, with 50 local organizations who were encouraged to share within their network. The organizations included community centers, libraries, food banks, family and homeless services, and churches and religious groups.
- *Recruitment:* A total of 66 residents applied using the recruitment form, which prompted questions for their age, gender, ethnicity, years lived in Bay Area, current city and county, and local news familiarity and satisfaction.
- *Selection Criteria:* Applicants were selected based on the uniqueness and diversity of their application and unfamiliarity or dissatisfaction with local news in their community. We also prioritized applicants based on the county they lived in and the number of total interviews we needed for that region.
- *Consent:* Applicants chosen to participate in the interviews were contacted by email and asked to submit a consent form to confirm their participation and be recorded.

## Interview & Analysis Methods

### Conducting Interviews

- *Virtual:* Due to the pandemic, we were limited to in-person gatherings and, therefore, decided to conduct all interviews virtually over Zoom.
- *Recording:* Each interview was recorded for purposes of documenting and revisiting the information shared by the interviewee.
- *Length:* The interviews were planned to take up to 30 minutes. The actual time spent varied based on interviewee's willingness to share information and were anywhere between 20 and 45 minutes long.
- *Incentive:* Each interviewee received a \$25 Amazon gift card that was issued to them after participating.
- *Script & Questions:* A script was written to help guide the interviewer with 14 questions about how they're informed or involved with the local community and trust or engage with local news. The interviewers were told to make sure each question was answered but did not necessarily have to restrict the interviewee only to the questions or in the given order. Additional questions were allowed to be included if the interviewer realized the interviewee was going in an insightful or unique direction that aligned with the research goals.  
[View and Download Script PDF](#)
- *Attendance:* One or two moderators were assigned per interview and followed the script and questions within the allotted time. Additionally, representatives from the newsrooms were invited to listen in on the interviews. Later in the project, we learned how this inclusion was one of the activities most enjoyed by the newsrooms as it gave them a first-hand connection with resident experiencing a lack of representation.

## Interview & Analysis Methods

### Synthesizing Interviews

- *Material:* Each of the interviews conducted had a video recording and documented notes from the interviewer.
- *Strategy:* Thematic analysis was chosen as the approach to synthesizing interviews, which required identifying patterns or themes that simplified the conversations.
- *Thematic Coding:* The research team used a collaboration tool called Miro to combine all of the interview notes together in a flexible whiteboard fashion where details were highlighted and organized across interviewees. Notes for each interview were contributed to Miro by 2-3 different people to ensure that the information was organized collectively rather than by a single person, which would have risked unintended biased results based on their perspective or experience.
- *Defining Patterns:* After grouping notes together, we defined two types of patterns that are explained further in this report: Representation Indicators ([Page 39](#)) and Themes ([Page 50](#)).



## Featured Interview

# Lillian

"Information from local government is most important to me and my neighborhood. San Jose City Council just provides events that happen, not how I can get involved. I trust a few local news outlets but am limited to read due to fees."

**GENDER**  
Female

**AGE**  
20-29 years old

**ETHNICITY**  
Asian / Pacific Islander

**REGION**  
Rockspring, San Jose  
Pop: <100 of 1.4MM (2021)

**YEARS IN BAY AREA**  
20+ years

**LOCAL NEWS SATISFACTION**  
3 out of 5

### Factors of Representation

*"The local Vietnamese community complains that news doesn't represent the local culture."*

Lillian's sense of local news representation was mostly impacted by how journalists were connected to the community and to what extent.

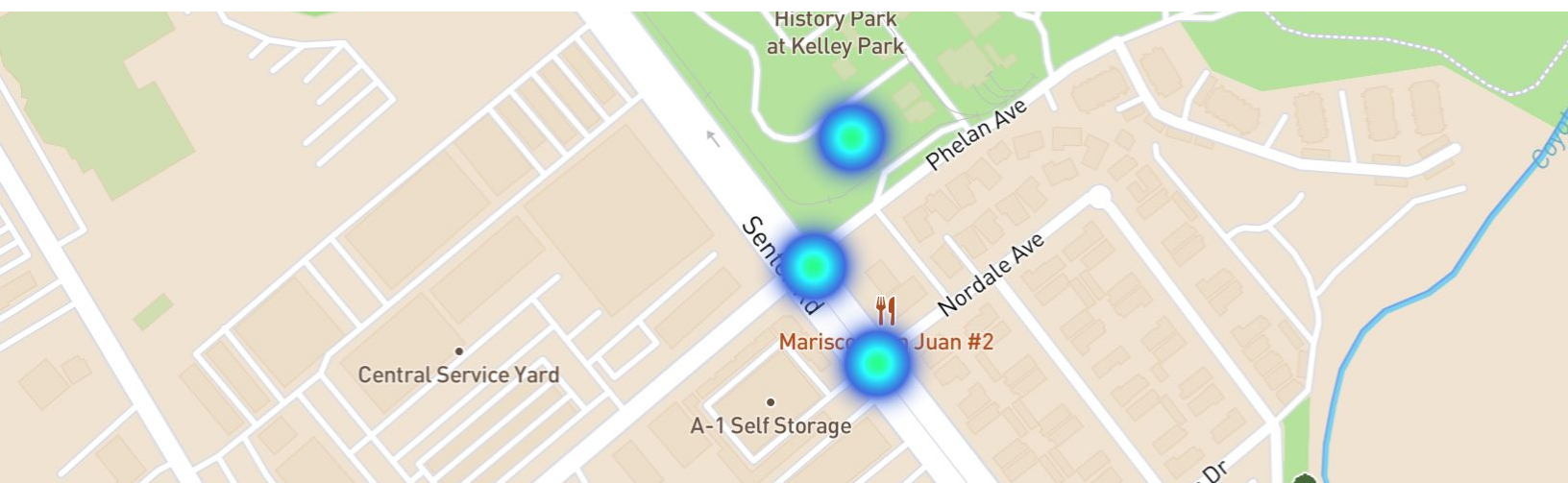
### Geotagged News Analysis

**LOCAL NEWS GEOTAGGED**  
9 stories total

**TOP CATEGORIES (+40% OF COVERAGE)**  
People & Society (Culture, Social Issues & Advocacy), Law & Government

**DIVERSITY OF OUTLETS**  
Covered by 3 of the newsroom partners

**NEWS SENTIMENT**  
66% of stories had neutral or low emotion





## Featured Interview

# Munir

"I see the underbelly of what's going on. We have little circles [communities] here that are interconnected with others throughout the Bay. However, when I browse local news, I don't feel the same level of connection to the community."

**GENDER**  
Male

**AGE**  
35-44 years old

**ETHNICITY**  
Asian

**REGION**  
Fremont  
Pop: 247,708 (2021)

**YEARS IN BAY AREA**  
10+ years

**LOCAL NEWS SATISFACTION**  
3 out of 5

### Factors of Representation

*"The stories are relevant but they're not getting to the community aspects of day-to-day life."*

Munir's sense of local news representation did consider that newsrooms have limited resources to cover Fremont and how they tended to exclude local perspectives.

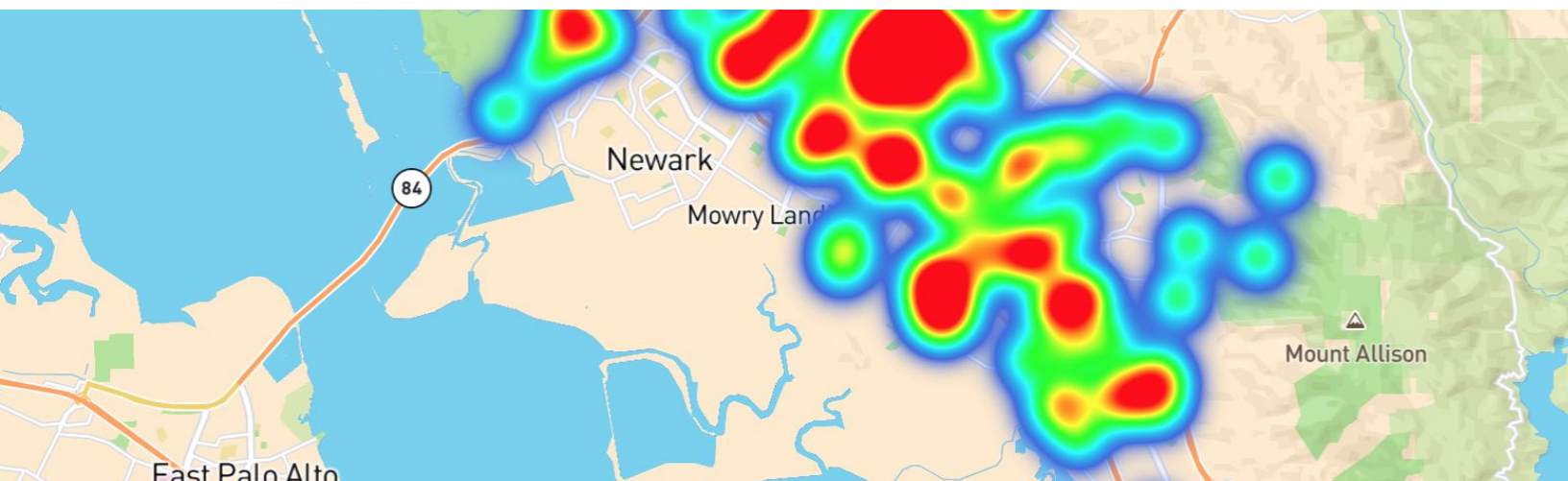
### Geotagged News Analysis

**LOCAL NEWS GEOTAGGED**  
148 stories (3 per week)

**TOP CATEGORIES (+30% OF COVERAGE)**  
Law & Government (Public Safety), Sensitive Subjects, Business (Transportation)

**DIVERSITY OF OUTLETS**  
Covered by 6 of the newsroom partners

**NEWS SENTIMENT**  
60% of stories had negative emotion; 35% neutral





## Featured Interview Steven

"Environmental news is most important for me to keep up with locally but I'm also interested in stories about global warming elsewhere too. Others in San Mateo [County] have to do their part too, otherwise it will impact us here."

**GENDER**  
Male

**AGE**  
45-59 years old

**ETHNICITY**  
White

**REGION**  
Foster City  
Pop: 33,997 (2021)

**YEARS IN BAY AREA**  
20+ years

**LOCAL NEWS SATISFACTION**  
2 out of 5

### Factors of Representation

*"I find it most useful, representative when local sources do regular follow-up reporting."*

Steven's sense of local news representation builds over time. The consistency of reporting and professionalism of a newsroom gradually influences his judgement. He also understands how certain local groups are not always inclusive for journalists to learn from and report about regularly.

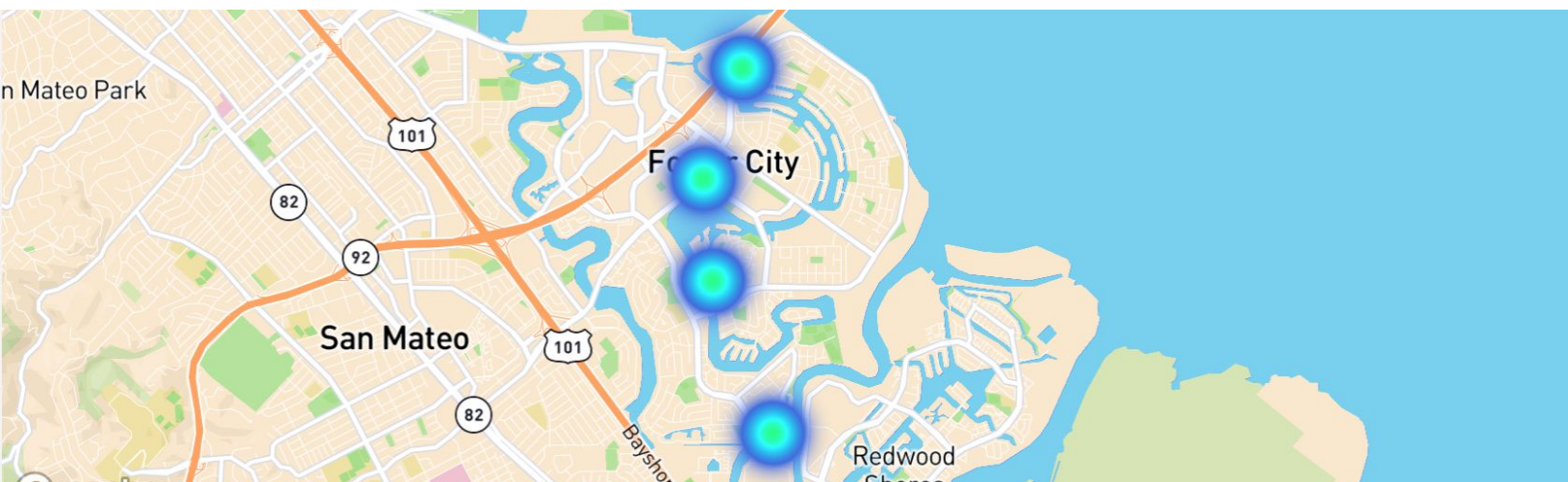
### Geotagged News Analysis

**LOCAL NEWS GEOTAGGED**  
10 stories total

**TOP CATEGORIES (+20% OF COVERAGE)**  
Law & Government (Public Safety),  
Arts & Entertainment

**DIVERSITY OF OUTLETS**  
Covered by 2 of the newsroom partners

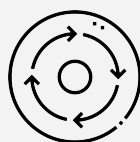
**NEWS SENTIMENT**  
All stories had neutral or negative emotion





# RESIDENT INTERVIEWS

## Representation Indicators



After the interviews, we manually conducted thematic analysis for all interviews and discovered seven core factors for local news representation.

We called these factors “Representation Indicators,” which people use to identify and measure their sense of representation for local news or other information about the community.

The Indicators do not represent a complete set of factors to measure representation but are simply ones that stood out during our research.

The Indicators are explained on the following pages but are not in any particular order. However, as written in this section’s concluding reflection, we did realize connections or relationships between all Indicators, which helped illustrate representation more clearly.



## 1 Proximity

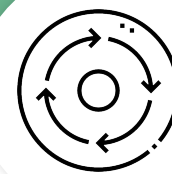
### Representation Indicator

**The Proximity indicator refers to the nearness of the newsroom's presence in a community, as subjectively defined by readers.** Despite having stories published in the local region, a resident's understanding of an outlet's geographic presence will impact their sense of representation.

We initially recognized this indicator with college students we interviewed, where their campus boundaries and nearness of their school paper influenced their sense of representation. "They do a better job than other news outlets due to their proximity," said Shuvi, a student at Stanford. Knowing that other students run the university's paper further strengthened the paper's proximity and representation, allowing Shuvi to realize that the journalists were likely walking alongside her on campus. Kiara, a student at Berkeley, agreed by contrasting how the "school newspaper is accurate, but news outside of that is not representative, not the same hyperlocal news." She also hinted that while close proximity may improve representation, it may consequently form a boundary from the outside culture for better or worse. "Students don't get too involved in the community outside of the school," she said and expressed concern that "everyone [is] involved in their own social networks or bubbles."

Before making any conclusions, we should consider that distance may not be the only factor for proximity. Additional interviews hinted that information density affects one's sense of proximity and that having an active university paper likely influenced the students' proximity threshold to be the campus grounds. We chose to interview Mona, a resident in Belmont, because we found our newsroom partners had only published four stories in the city in the past four months concerning us about its representation. However, we learned that the city's boundaries did not constrain her sense of representation because she defined "local" more broadly. "I'm not interested in hyperlocal since Belmont is so small," she said. "I would consider anything in San Mateo [County] as representative local news." She continued with how she feels "a stronger connection [on Nextdoor] but not interested in what's posted from other places in San Mateo [County], just locally in Belmont from her neighbors." Mona's examples shows how her sense of acceptable proximity varies for each information type or outlet. Considering all of the contexts here, we conclude how readers relatively define proximity based on their perspective of space and information density rather than solely by geographic distance.





## 2 Consistency & Depth

### Representation Indicator

The Consistency and Depth indicator looks at the consistency of a newsroom's presence in a given community and the depth of that consistency. The term *consistency* here refers to how the frequency and variety of local news stories align with what's happening locally.

For example, residents may perceive a newsroom as more representative if they consistently do follow-up stories about an ongoing topic in the community. Newsrooms that only cover stories at surface-level frequently or do not adequately connect follow-up stories are, therefore, perceived as less representative in those stories regions.

Ray from Willow Glen said how "[newsrooms] don't cover a lot of issues. They don't go in depth with the issues of the city." Being on the civil grand jury, he knew of newsworthy issues "that you wouldn't hear about in any other way because news doesn't go to that depth."

Shuvi, a student in Palo Alto, expressed awareness of low consistency in local news outlets, saying her university's newspaper feels more representative because they consistently cover news about how student housing is unfolding.

At the same time as these interviews, Reuters Institute ([April 2021](#)) published research stating that a factor of consistency is how long the newsroom has been established in a region. The length of their local presence affects whether they have had sufficient time and practice for a consistent pattern to develop in their coverage that residents recognize. "An organization's track record involved past encounters and evaluations about the nature of its coverage over time... gives a level of credibility..."

Considering the characteristic of time helps put this Consistency and Depth indicator into more context, showing how newsrooms cannot achieve representation overnight. Outlets that have not yet formed a consistent pattern or don't make that clear to readers may sustain a lower perception of representation until they designate time for more regular local coverage.



### 3 Newsroom Capacity

#### Representation Indicator

The Newsroom Capacity indicator is a reader's understanding, acknowledgment, and acceptance that a newsroom has a limited capacity and can only cover regions, topics, or stories, at limited quantities and depths. Across many interviews, we found this acknowledgment of the newsroom's capacity made the resident avoid signaling underrepresentation in their region despite acknowledging an insufficient amount or depth of local news stories.

Residents we interviewed said how they do not hold newsrooms solely accountable for representation. Many interviewees mentioned that they also rely on other sources like social media to get hyperlocal information. In regions where social media also did not have hyperlocal information, others acknowledged that their neighborhood does not have much activity to cover and that the lack of reporting made sense.

Andrea from Oakland explained that she relies on Nextdoor for information about the Piedmont Avenue neighborhood and doesn't feel underrepresented because the neighbors and local organizations inform her sufficiently. She said, "technically, the neighborhood is underrepresented [by local news]," but realizes that professional news outlets may not have the capacity to be on the ground near her and, therefore, doesn't look to them as a hyperlocal source. Three other interviewees from across the Bay Area in Millbrae, Fremont, and Palo Alto showed empathy toward local newsrooms and acknowledged their limited capacity saying, "[newsrooms] don't always have time to get the whole story."

In conclusion, the acknowledgment of newsroom capacity shows an empathetic side of the community. This indicator points to how residents may gauge representation relatively; if they recognize their region has lower newsworthy activity than others, they may acknowledge that a newsroom must have more resources in those other areas. As this indicator becomes prominent, the feeling of underrepresentation may reduce but doesn't necessarily increase representation itself. Instead, local news outlets become seen as less of a hyperlocal resource altogether. If this indicator rises, it may steer habits of residents toward non-news sources and platforms when looking for hyperlocal information, unlatching how residents perceive the role of newsrooms in their community.



#### 4 **Community Inclusivity & Willingness** Representation Indicator

The Community Inclusivity and Willingness indicator recognizes how the openness or inclusivity of the newsroom to hear, collaborate, or get feedback from a particular community influences their perception of the newsroom's ability to represent them. This indicator may relate to how a newsroom responds to a community's request to attend a local meeting, for example. Whether and how they respond to the request, participate, and speak to residents while in attendance may impact that community's sense of representation.

Additionally, that community's willingness to position itself in a way that allows the newsroom to connect with its members will influence that newsroom's ability to do so. It was mentioned in the interviews how particular cultures are more reserved and tend to stay within their own space, creating an extra hurdle for news representation.

Interviewees defined this indicator by discussing how the participation of their neighbors influences their sense of representation for a news outlet. Therefore, "community" is essential to this indicator as it relies on the connection with community members collectively rather than with readers individually.

Steve, who lives in Foster City, discussed how city councils, groups, and services seem continually challenged to represent the local Chinese community due to the exclusive nature of their culture. Despite not being genetically related to the Chinese, he regularly engages with them because he speaks their language and has earned their companionship over time thanks to that skill.

As seen here, this indicator can turn out to be quite the chicken-and-egg problem. No matter if a newsroom is open to listening and puts in the effort to invite others, local communities have to be willing to listen and speak with newsrooms to form a relationship. Whether both decide to be inclusive and put in the required effort to maintain inclusivity will determine the amount of friction against news representation growth.



## 5 Local Voices & Context

### Representation Indicator

The Local Voices and Context indicator is the newsroom's willingness and practice of including perspectives from a local community, including ordinary residents, not only authorities or subject matter experts. Additionally, this considers the voice of residents alongside the story and their context that describes how it personally impacts them. Suppose the reader does not see that a story has used a local community member as a source in this way. In that case, the capability for the newsroom to be representative of that particular community becomes questionable.

Kiara, a student in Berkeley, directly tied this indicator to news representation, "relating to whether or not voices in the local community are listened to and shared [in local news]." Munir of Fremont further shared a personal experience of how, as a new resident, it was difficult for him to feel a sense of community. He told us, "the minutiae of the day-to-day life is not reflected [in local news]."

Danny from Alum Rock gave the potential cause and effect of local news that lacked local voices. He said that journalists usually "only use information that's easy to get," which requires less time and investigation, usually only going to the subject matter expert. The residents perceived these stories as sugar-coated with tidbits of local points rather than an embedded rhythmic voice of the local community.



## 6 Author Connection Representation Indicator

**The Author Connection indicator is how the reader perceives the capability of the author of a news story to represent a community.** A lack of author connection would elicit that the reader does not believe, for some reason, the author can understand and talk about a community in a way that accurately represents it.

Examples of Author Connection indicators may include:

1. Social media following;
2. Association with local activities or organizations;
3. Readability or experience of the author(s) biography or byline;

Interviews that referenced this indicator taught us how the resident often judged the capability of the news source before reading the content. Therefore, their perception of the author was influential, whether positively or negatively, to the perceived ability of the content.

A pattern within each listed example is how they inform the reader about the author, which hints at how the author must introduce themselves before a reader can activate and begin measuring their feeling of representation. Lilian, a resident we interviewed who lives in a small, low-income neighborhood in San Jose, questioned a newsroom by asking, "but is it official?" Despite its mission to be community-driven, she has been skeptical because she found their organization and staff social media accounts have a low following. Lilian recalled an experience with one of their journalists, a local student who followed her on Instagram. This new connection made her revisit her perception of the newsroom, knowing that they hired local students to write about the local community. From the Alum Rock neighborhood, Danny elicited this indicator by saying that he did trust the same local newsroom because he knew many of their authors. Another contrasting viewpoint came from Andrea, from Piedmont Avenue in Oakland, who commented on the representation of Nextdoor, "yes, [because it] is made up of people who live nearby."

In conclusion, this indicator consistently remained very place-based and human-centric. The ease of connecting authors to the given locale directly impacted their willingness to judge, and even misjudge, the content.



## 7 Professionalism

### Representation Indicator

**The Professionalism indicator relates to the reader's awareness and understanding of the newsroom's standards and practices.** Residents may not perceive local news outlets as representative if they aren't aligned with their professional expectations.

We interviewed Mona from Belmont who told us that she defines whether a source is reputable simply at first glance at their type of writing and affiliation. Steve from Foster City echoed how he puts more trust in outlets that make their journalism standards clear. Currently, he sees that smaller local outlets in his area and regional outlets don't do this. During these interviews, Reuters Institute ([April 2021](#)) published research that stated how differentiation between newsrooms could be improved to "more proactively communicate who they are, what they stand for, and how they do their work."

Amrita from Menlo Park said that she didn't see the importance of professional journalism standards. She hinted that her perception of professionalism might not align with the standards set and communicated by newsrooms that cover her area. She may not be alone, and the problem may be more profound than just improving communication. In a paper from Media Ethics Magazine ([2019](#)), Lance Strate guides us through the development of ethics in media over time. "We have moved on to relativism... the idea that ethical evaluation is a matter of individual conscience rather than collective concern suggests that ethics are entirely subjective." What he's saying here is how we individuals, like consumers, have seemed to have taken the wheel at defining what is ethical and what is not. With ethics as a part of professionalism, the communication of such standards is one factor, its adaptability to particular individuals at a specific time is another. Newsrooms must be aware that the approach to defining their standards internally within the comfort of their conference room may need to be reversed, allowing the community to determine what their standards as a local news outlet should be. Furthermore, it would be essential for the standards to remain fluid, like an open conversation, adaptive for new communities or perspectives that arise that newsrooms aim to serve.

## Reflections

### Representation Indicators

After identifying these Representation Indicators separately, we began to see a network of connections. Throughout the interviews, it was clear that one indicator was not solely responsible for the person's sense of representation by local news. It was common to hear one or more indicators as our conversations dug deeper into why the person might feel underrepresented or misrepresented.

We found that the Author Connection indicator was the most networked with others. The author's ability to be associated with the community was influenced by other indicators such as Community Inclusivity & Willingness, Professionalism, Local Voices & Context and Proximity. As a network, the lack of one of these five indicators seemed to limit the newsroom's capabilities of sustaining the others. Overall, we found the Author Connection to be a prerequisite for the others and was most important to achieve initially to allow the others to have full potential. Other indicators amongst these five may also be prerequisites, such as Professionalism.

Newsroom Capacity and Consistency & Depth indicators seemed to be more independent from the rest, lightly relating to a few others but primarily acting as a unique representation factor. For example, one connection between Consistency & Depth is Local Voices & Context, which must be included in editorial practices for Consistency & Depth to be most impactful. As another example, Newsroom Capacity relates to the Proximity indicator by their contrasting goals; residents who perceived newsrooms with a lack of Proximity also acknowledged their low Newsroom Capacity to cover the local area.

These definitions of indicators and their networked picture of pulling toward and pushing away from each other have helped us understand the many ways that Bay Area residents may gauge representation. It is uncertain whether newsrooms can handle all of these indicators simultaneously or what level of balance would be sufficient. What this identification of indicators attempts to show, however, is that each one has some level of influence in a local environment.





# EXPERIMENTS

## Overview

Our research in the first phase of the Bay Area News Collective — **geotagged news, resident interviews, and collective analysis** — gave us a **range of insight from Bay Area communities**. The second phase of the project, documented in this next portion of the report, was designated for experimentation guided by this information.

Our goal for experimentation was to develop a tool that could better understand or improve a person's sense of news representation. The one caveat was that we would attempt to work towards this goal without affecting existing technologies or workflows within our newsroom partners. The project's team defined this limitation to learn how to efficiently assess representation challenges with minimal requirements in the current newsroom environment.

The following pages walk through our experience as we collaborated to discuss the insights, host design workshops, and test experiments with team members and residents. We conclude this report with lessons learned from working through these processes with the newsrooms collectively.

## Themes

### Experiments

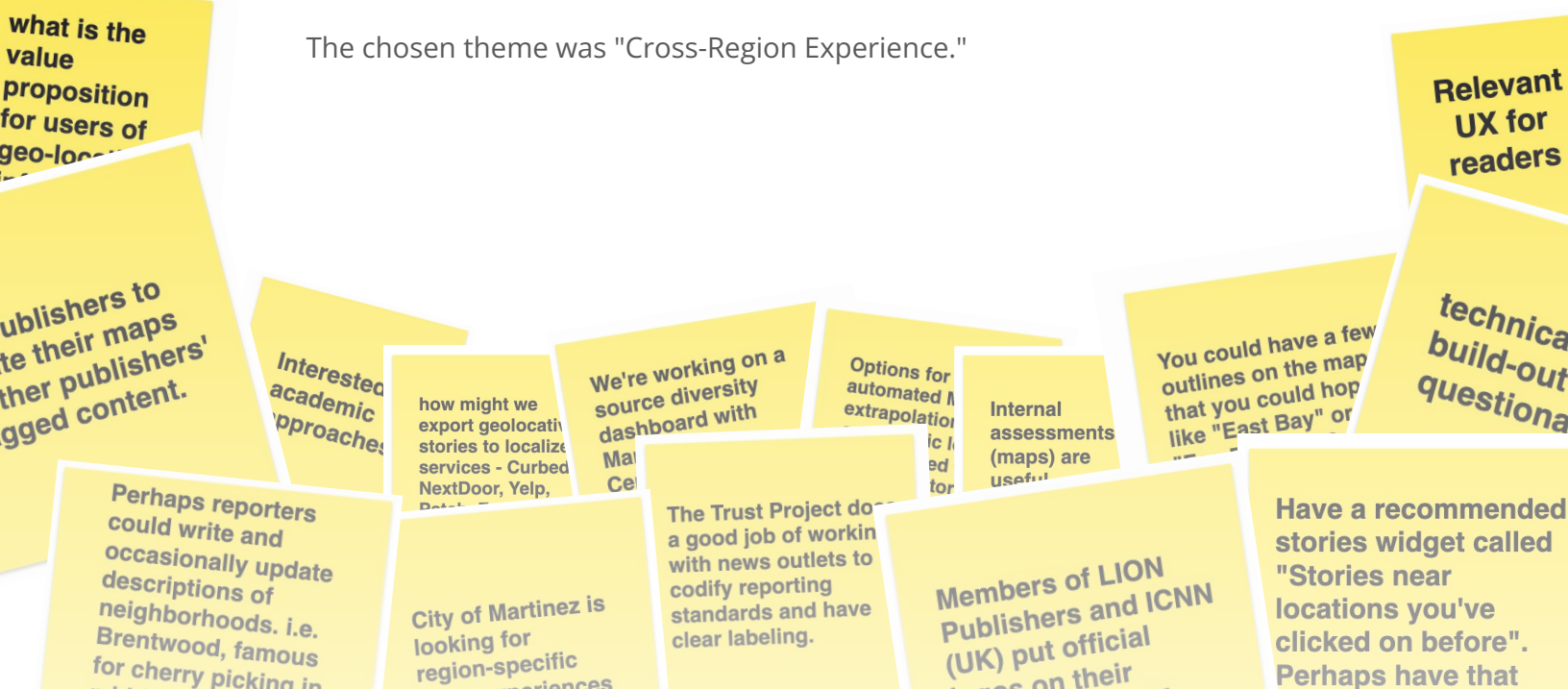
To guide discussions for the project's experiment, we came up with themes that illustrated real-life environments or events based on the **Representation Indicators**. These became apparent when we combined multiple indicators to describe experiences from the interviewees. For example, we found a theme called Local Diverse Sourcing by combining two indicators: Local Perspectives (increased contribution of residents) and Newsroom Capacity (limited resources for newsrooms).

Overall, we identified seven themes:

1. "I don't know what I don't know"
2. Local, Diverse Sourcing
3. News Outlet Diversity
4. Cross-Region or Cross-Community Experience
5. Filling News Gaps with Hyperlocal Sources
6. Personal Perception of Geographic Boundaries
7. "We": Group Perception of Community

The project team thoroughly presented each theme to the newsroom partners to explain a scenario for how people in the Bay Area encounter or measure local news representation. Everyone collaborated in the discussion by using Google Jamboard, a virtual whiteboard, to add their ideas, thoughts and concerns. After the review, we engaged in a poll to vote for a single theme to focus on for the project's experiment.

The chosen theme was "Cross-Region Experience."



## Cross-Region Experience

### Theme Introduction

"I'm interested to compare local news in neighboring districts with my area... see how they're solving problems."

*Lilian from Rockspring, San Jose*

In many interviews, residents responded positively toward being informed about nearby regions outside their neighborhood. Reasons for crossing geographic boundaries correlated with their needs for feeling represented locally, to support their current sense of or fulfill a lack of representation. We also realized how residents were more comfortable measuring or talking about their representation locally when they were aware of coverage elsewhere, understanding where the region's bar was set.

We learned how residents were curious about this cross-region experience but needed to understand their relation to distant areas in order for it to be most effective. This geographic sense-making occurred because:

1. They want to extend out of their hyperlocal bubble to be aware and a part of the larger local community.
2. They want to compare news happening in other local regions about subjects or needs that they encounter in their neighborhood.
3. And, they feel their immediate area is too small or lacks activity for sufficient news coverage and want to learn about the wider area.

These three reasons varied based on the person's current needs or interests, such as keeping in touch with places family lives, specific topics like food or business, and communities of practice, religion, and culture.

Some residents already had a workflow to achieve this experience, such as belonging to a county-wide listserv. In contrast, others voiced the importance of the approach but admitted they were not well-equipped, such as lacking familiarity of news outlets in surrounding areas.

## Cross-Region Experience

### Resident Quotes & Newsroom Responses

"I'm interested in **how other cities are affected** by, managing homelessness. It is being swept under the rug?"

*Davey from Novato*

"How different municipalities are dealing with homelessness is interesting, **it's all over the map**. There's different local flavors and **it's a region-wide problem.**"

*Response from newsroom partner*

"I'm keeping an eye on what's going on and how, **whether any of it affects my immediate area** and me personally."

*Andrea from Piedmont Avenue, Oakland*

"I read public safety stories happening elsewhere in the Bay **to get a sense of safety for my own neighborhood.**"

*Munir from Fremont*

"I look up to San Carlos [a neighboring city] to learn what's happening, and **then compare or apply it to Millbrae.**"

*Randy from Millbrae*

"San Mateo has to do their part too. **Otherwise, it will impact us here.**"

*In discussion about climate change news*

*Steve from Foster City*

"Super useful for highly-engaged readers, volunteers, policy makers, researchers, who are trying to get a better grasp of how these geographic areas intersect. **That in itself would be a potential collaborative effort.**"

*Response from newsroom partner*

## Cross-Region Experience

### Discussions & Planning

For a month and a half, the project team engaged the newsroom partners in four participatory planning sessions that explored possibilities for the experiment.

We regularly referenced insights or examples from the data or interviews throughout the sessions to support or contrast against our own opinions and suggestions. It was essential to introduce the meeting with these references to refresh everyone on the project's goals quickly. We also found it effective to make the resident quotes, data points, and the live dashboard accessible to all attendees to access themselves during the meeting.

Many newsroom representatives approached the project from a different set of technologies and knowledge, where we expected their understandings of technical terms and processes to be on varying levels. Therefore, we found visualizations and simple bullet points helpful when sharing or questioning technical or functional aspects of the experiment. We also planned meetings in an open discussion format where each newsroom partner had a chance to speak up about a question, concern, or other response. With newsrooms having unique preferences or capacities, we learned this collaborative approach was essential to respecting their needs sufficiently without underdelivering or overburdening.

The outcome of the planning sessions defined the experiment's goals, performance indicators, functionality, design, and implementation capabilities. The following pages explain each in detail.

## Cross-Region Experience

### Goals

In general, our experimentation goals were to learn how the impact of a collective newsroom approach to news analysis and presentation differs from an individual newsroom approach.

- To learn how a collective view of engagement from multiple newsrooms impacts the insights from analytics reports.
- To learn how location-based curation of news stories from multiple newsrooms impacts reader engagement.
- To learn how curating news from multiple newsrooms into a single product impacts opportunity and value of business collaborations.

### Specific Goals for the Cross-Region Experience

To provide readers with the ability to learn, compare and contrast news stories between different regions in the Bay Area. Determine how engagement varies outside of their immediate hyperlocal area.

- Assess and improve the familiarity of local news sources and overall perception of source diversity in the region.
- Assess and improve accessibility and understanding of news happening in surrounding regions, including its relation to their immediate area.
- Guide readers to relate and apply the foreign information with their selected immediate region.

### Targeted Audience

The primary targeted audience for this experiment will be people with inadequate news coverage in their neighborhood or city who are interested in learning and applying local information from neighboring regions.

## Cross-Region Experience

### Key Performance Indicators

#### Coverage Indicators

- Availability of news stories in the reader's immediate region and their surrounding regions; including quantity, frequency, diversity.

#### Engagement Indicators

- Difference in engagement with stories in immediate and neighboring regions.
- Difference in engagement with experiences that are curated individually or collectively across newsrooms.

#### Collaboration Indicators

- Openness and ability for newsrooms to include stories from other newsrooms on their websites and analyze stories collectively.
- How local businesses, advertisers, or other partners view opportunity and value of collective news experiences.

## Cross-Region Experience

### Functionality

*How might users engage with the experiment's interface and content?*

#### Functionality Capabilities

- Select a region and compare coverage with other regions.
- Select a topic to review it's coverage across regions and time.
- Select *individual* or *collective* newsroom options for curation.

#### Functionality Components

- *Interface*: Interactive Map and information boxes.
- *Navigation*: Select from a list of nearby or surrounding areas.
- *Topics*: Toggle various categories to see it mapped near or far away.
- *Sources*: Toggle or view all newsroom partners for curation.
- *Comparison*: Select location to compare news coverage with.
- *Time*: Change time range to compare regions over time.



## Cross-Region Experience

### Considerations for Design

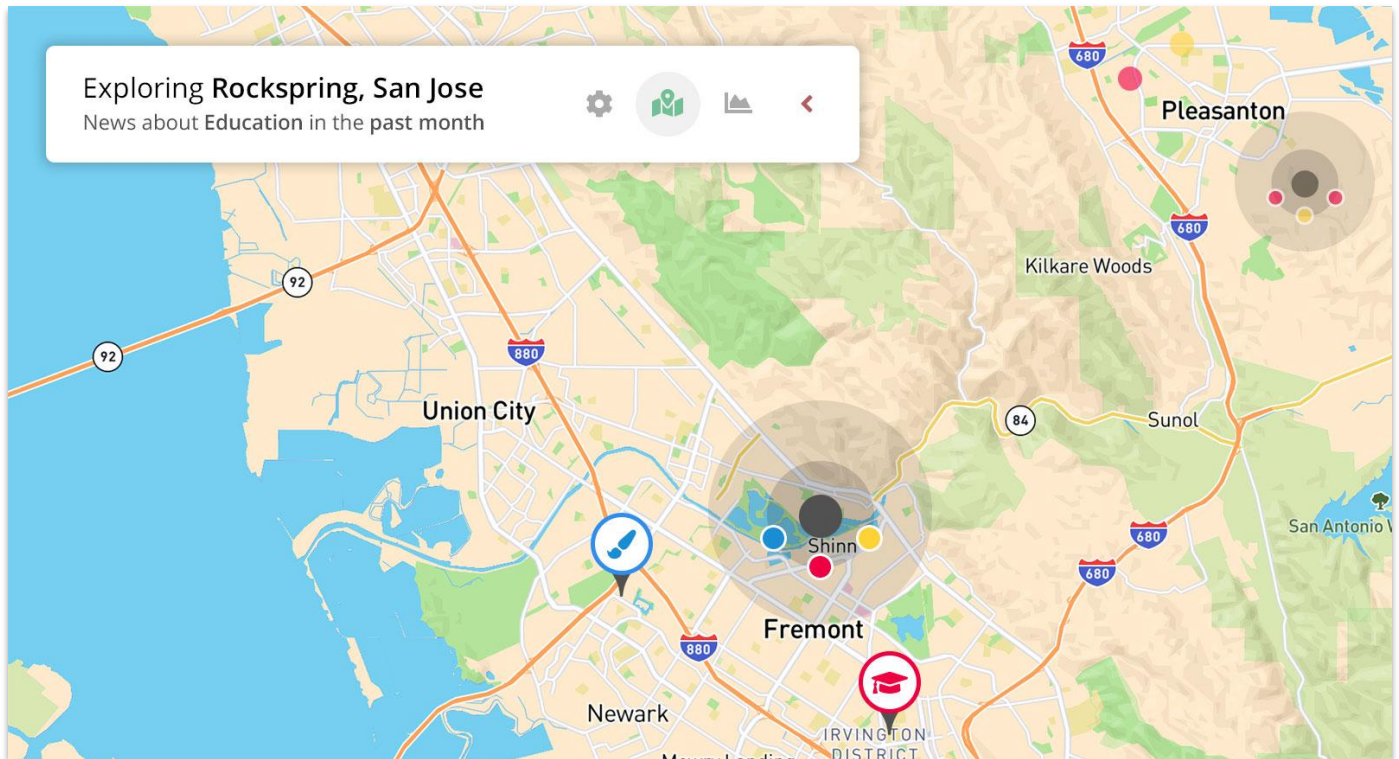
As the experiment entered the design phase, we realized many variations that met the goals, performance indicators, functionality, and implementation capabilities. Despite their appeal, we had to choose one or a small combination of them.

1. Variation #1: Map as an exploratory tool  
Offer all functionality components to the map for the reader to make use of as needed. Allow for multiple types of use cases.
2. Variation #2: Map as a regional lens  
Predefine a single region on the map that centered readers. Make the experience more guided with limited controls.
3. Variation #3: Guide *big picture* understanding  
Assist readers in making sense of all coverage in the Bay Area for their interests. Support their needs for knowledge management.
4. Variation #4: Embedding topic-based map  
Situate the map next to other stories on the news website, allowing people to explore related stories across newsrooms while reading.
5. Variation #5: Dig deeper  
Rather than just showcasing multiple stories, focus on helping the reader go deeper into specific stories or topics.
6. Variation #6: "Did we miss something?"  
Give option for readers to add to the map as the experiment may not capture all activity and stories published in the Bay Area.

We decided collectively to prioritize Variation #1 (Map as an exploratory tool) while also integrating lightweight tests for #5 (Dig deeper) and #6 (Did we miss something?). The following pages show design mockups and feedback we received for these experiment variations.

## Cross-Region Experience

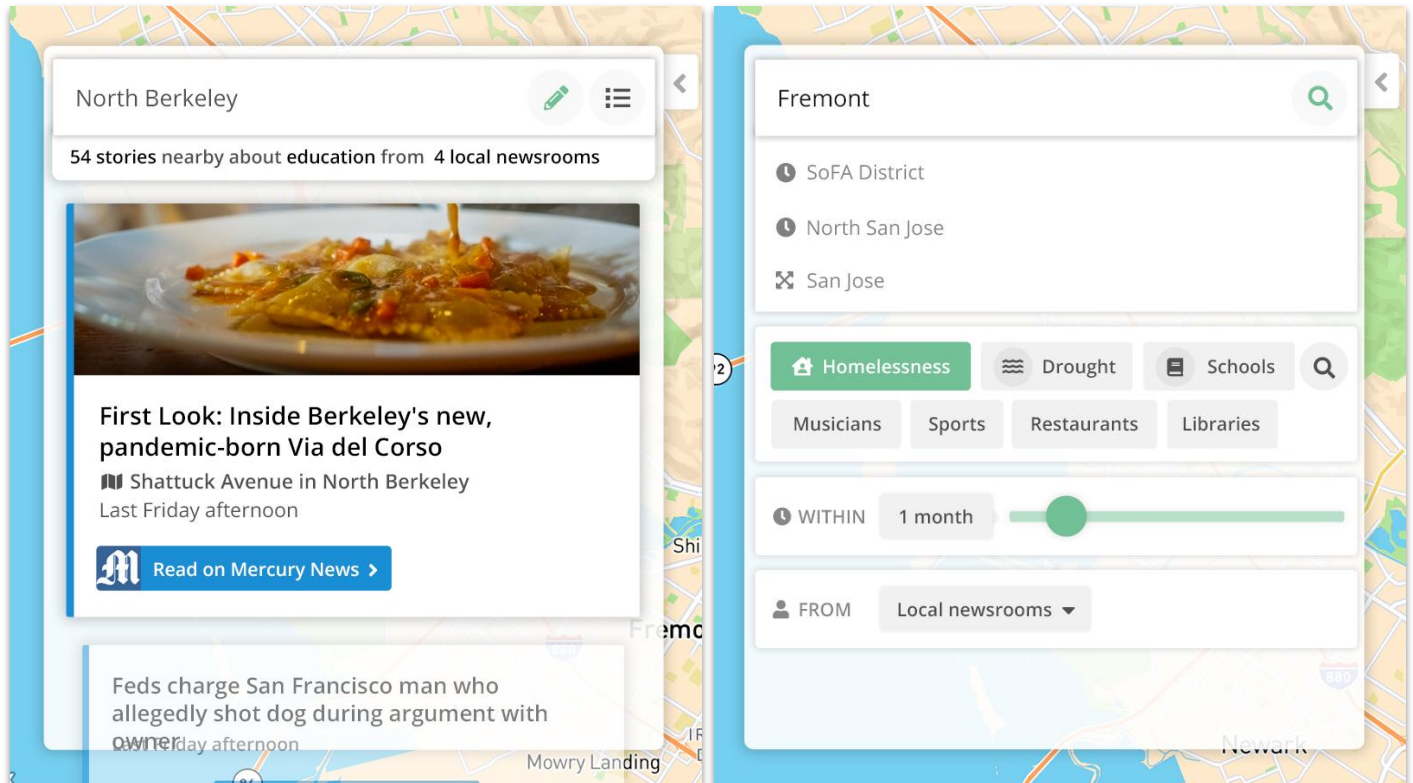
### Considerations for Design



Mockup: Display news stories from multiple regions on a map and create a hierarchy (ex. different style dots) where the user can see what's most relevant to them, but also what options there are to explore.

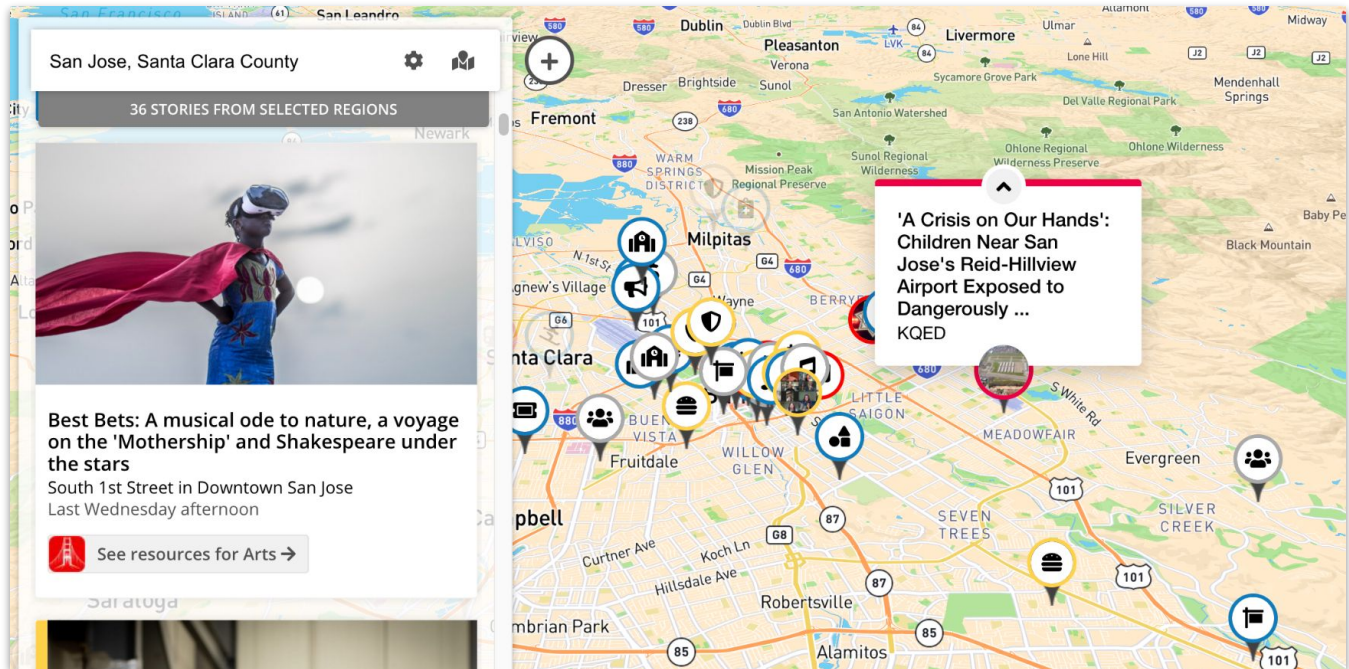
One challenge with this approach was acknowledging the reader's preference for stories in regions outside of their immediate area. There was a shift in interest in hyperlocal stories when exploring content across multiple neighborhoods within the same city or county. For example, residents expressed the need to keep up with stories about small and specific places in their community (ex. potholes) but less in surrounding neighborhoods. Instead, they are more interested in coverage that spans broadly across an entire area.

## Cross-Region Experience Considerations for Design



Mockup: Provide options to navigate story-by-story in a feed and to customize that feed to the user's needs or interests; by location, topic, time, and news source.

## Cross-Region Experience Considerations for Design



Mockup: Make stories in immediate area most visible (ex. bright circles) while stories in neighborhoods or cities within the same county are less visible (ex. faded circles).



## Cross-Region Experience

### Considerations for Design

Aside from the interactive map experiment, the project team developed prototypes for a collectively-curated newsletter and RSS feed. These additional tools took stories from the map's feed and reformatted them to produce a cross-region experience outside of the web browser. These tools were only utilized internally and were not made publicly available.



Mockup: Newsletter that curates stories from many new sources collectively.

```
<?xml version="1.0"?>
<channel>
  <title>Bay Area News Collective</title>
  <link>https://www.bloom.li</link>
  <description>Recent Local News from 7 local newsrooms</description>
  <language>en-US</language>
  <dc:creator>Bloom Labs</dc:creator>
  <sy:updatePeriod>hourly</sy:updatePeriod>
  <sy:updateFrequency>60</sy:updateFrequency>
  <lastBuildDate>Fri, 03 December 2021 19:49:38 +0000</lastBuildDate>
  <generator>https://www.bloom.li/?v=1.3</generator>
  <ttl>1</ttl>
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  <image>
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Mockup: RSS Feed that curates stories from many new sources collectively.

## Cross-Region Experience

### Prompting for Feedback

The design mockups for this experiment were coded into functional prototypes. The initial development took less than two weeks to make available, allowing us to quickly conduct testing and internal reviews that prompted newsrooms and residents for feedback.

#### Surveying Newsrooms

For about two weeks during the summer, the newsroom partners and their teams had the opportunity to try the prototype and give feedback. The project team prepared a tutorial and emailed them four open-ended questions. We learned how response times were slower than expected and may have been more efficient if communicated more clearly, such as multiple-choice questions or a stricter deadline. We eventually received and discussed all responses in the following virtual monthly meeting, which seemed more convenient for them to respond in an open-ended manner.

In addition to the prototype review, the newsrooms had the chance to review the survey for residents. We received helpful feedback from them on whether the questions would garner insightful responses.

#### Surveying Residents

Residents contacted for interviews earlier in the project were essential for follow-up questions later in the year, allowing us to avoid redoing significant research and outreach tasks. We used our contact list to quickly reach out to them again to fill out a survey about the prototype. We communicated the opportunity as a way for them to give feedback on a tool they asked for, which we found to be a meaningful follow-up. We asked the residents to use the prototype and fill out a survey about their experience. The survey sought to learn about the ease of the user experience, whether it helped fulfill their cross-region needs, and if it impacted their sense of representation.

## Cross-Region Experience

### Analyzing Feedback

#### Feedback from Newsrooms

"I like the on-map view, **it's engaging.**"

"The map view is novel and fun. But I **still struggle to see what the 'job to be done for the user' is for aggregate collections of stories.** There was some discussion about a single focus area that would combine geography, editorial and analysis; this may make it easier to find the 'job to be done'."

#### Feedback from Residents

"**Easy to learn about surroundings than immediate area,** and to understand stories are from multiple sources and topics."

"it enables me to see in **a very real sense where these stories are happening,** not just 'someplace out there.'"

"Very unique. I think it **takes time to skim over the map** and click on a pin. It's similar to snapchat's map feature..."

"**I would want a lot of news stories for my area** to feel like I have a better grasp on what is happening."

Our main takeaways were:

- The map helped them understand surrounding regions more than their immediate area.
- They agreed that the map shows how topics are covered differently in multiple regions.
- They agreed that it was easy to find stories from multiple news organizations.
- A majority are in favor of 'going deeper' with story resources.
- A majority want to tell newsrooms about topics or regions that could be represented better.
- A majority are not in favor of limiting topics.

## Cross-Region Experience

### Planning for Implementation

Our intentions for sharing the experiment were to have newsrooms implement the tool on their services or conduct marketing for it to their audience. We planned this distributed strategy to get the word out to people in the Bay Area through various sources.

#### Implementation Guidance

During monthly meetings where we discussed the experiment, some newsrooms expressed the need for instructions before moving forward with any technical or marketing tasks, such as embedding the map on their services. For example, they asked for language for the map's web page and the type of analytics to collect and share. Therefore, the project team wrote a document with step-by-step instructions. We learned how this document could have been prepared earlier in the project to avoid implementation delays.

#### Analytics Sharing Agreement

One of the newsroom representatives requested a handshake agreement with all newsrooms regarding sharing traffic and engagement numbers. Like our Data Collection and Reporting Policy ([Page 6](#)), we created language about sharing data internally with the team, such as what metrics we would want to gather collectively and how frequently those reports would be due. All newsroom partners were open to sharing data about the experiment on their services.

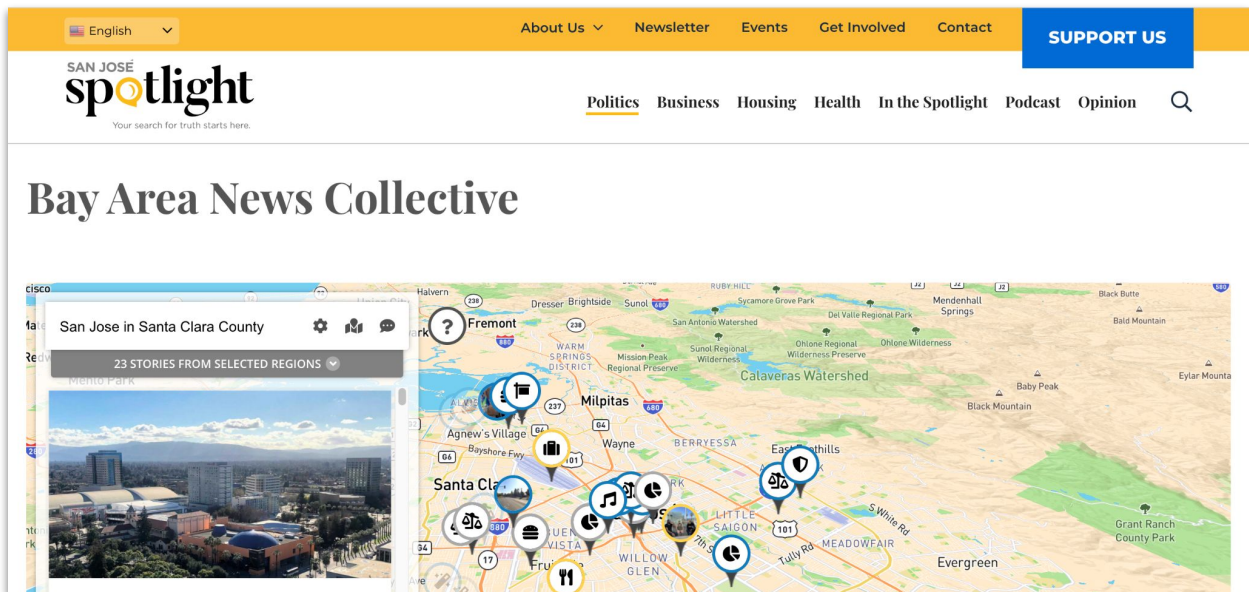
*"Happy to share our analytics on the page"*

At the time of this report's publication, collection and analysis of engagement data was still in progress and may be reported at a later date.

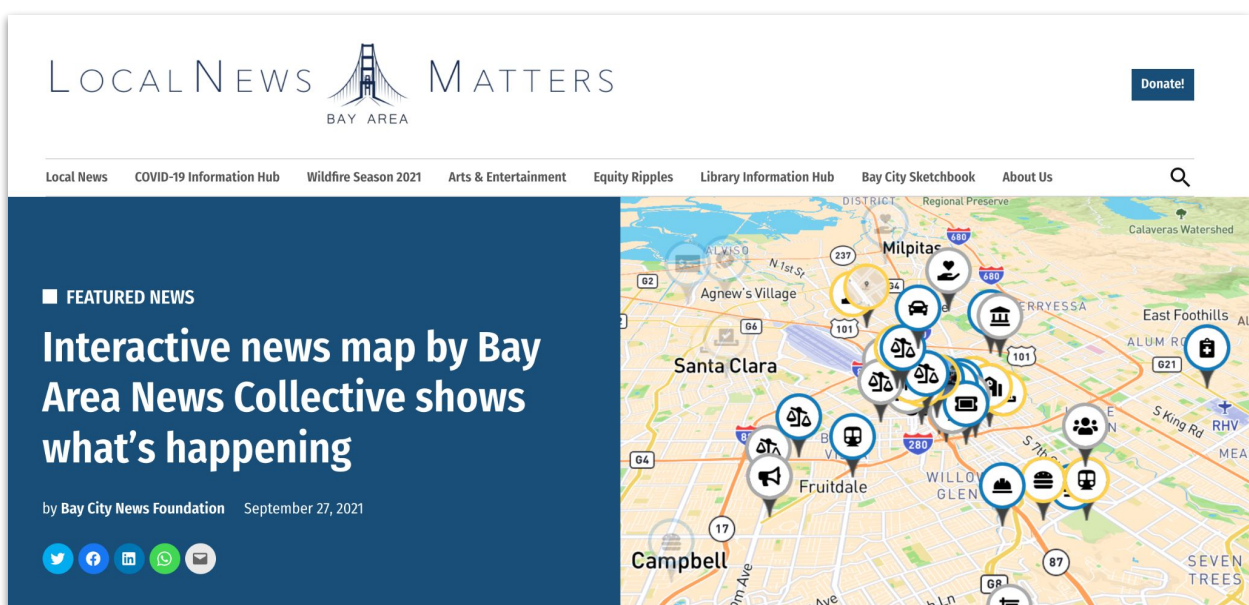


## Cross-Region Experience Implementation

Here are examples of two newsrooms that implemented the map for readers:



San José Spotlight: [sanjosespotlight.com/bay-area-news-collective/](https://sanjosespotlight.com/bay-area-news-collective/)



Local News Matters: [localnewsmatters.org/...interactive-news-map...](https://localnewsmatters.org/...interactive-news-map...)



# REFLECTIONS

## Overview

Throughout this report, we included insights and lessons learned about each project phase and specific activities. We shared efficiencies and inefficiencies of collecting data for over 8,000 stories with our newsroom partners, patterns we identified while interviewing Bay Area residents about local representation, and adjustments we found helpful to experimental design and implementation. As we conclude, we would like to share insights considering the project as a whole.

Our team sustained consistent newsroom collaboration throughout the project by acknowledging and encouraging their participation and needs. Over time, this engagement helped build trust between all participants. In the final weeks of the project, we engaged the newsrooms in one-on-one interviews where they had a chance to reflect on their experience and give feedback on what went well and what could have improved. Representatives expressed how they are now more comfortable reaching out and collaborating with others after the project. Similarly, they shared how their perspective of local news representation is more robust as it considers a thorough geographic lens.

**"We now have a different understanding of representation, how our newsroom sees its place in the ecosystem."**

**"The project helped formalize a stronger strategic effort for our newsroom and gave us a better understanding of the local audience and our concentration of resources..."** fits very nicely with our goal so many of our initial questions were answered. They confirmed we were meeting our mission."

*Kat at Local News Matters*

## Reflections

### Lowering Fences

*Improving representational understanding by making boundaries more inclusive*

Anyone working with spatial journalism will often find themselves confined by *geofences* every once in a while, where they define spaces by the news happening *within* it. However, when considering geography to describe local news representation in this project, our team encountered pressure to consider information *beyond* our defined fences. This widening of perception is one of the patterns that gradually formed throughout our research. In fact, in psychology, it's a form of explanatory reasoning called abductive reasoning that subconsciously exists in everyone's regular sensemaking of spaces and other groupings, such as for culture and social equity.

Our team and newsroom partners learned to gauge whether a region was well-covered with news by how areas *elsewhere* were being covered. Similarly, residents told us how they measure local representation by looking at what is happening in neighboring areas. Little did we know at the time, but abductive reasoning was integrated into the entire premise of our experiment for Cross-Region Experience — to support how residents define their sense of representation by comparing and contrasting news coverage in the surroundings ([Page 51](#)).

*"I read public safety stories happening elsewhere in the Bay to get a sense of safety for my own neighborhood." - Munir from Fremont.*

This type of reasoning was also in the Representation Indicators ([Page 39](#)):

- Newsroom Capacity: A newsroom's lacking representation in one area is forgiven if its surroundings have a greater need for journalism.
- Consistency & Depth: Similar to surrounding *space*, what is happening in the surrounding *time*, before or after, is just as important.

We can then view a concept of lowering fences as an inclusive approach to information exchange that improves capabilities to understand a space whether you're within or outside of it. Lowering won't necessarily devalue a boundary but makes it more accessible for different types of exchange. In spatial journalism specifically, we must look beyond the geofence as a constricting way to just count story locations or identify patterns. Thinking of it instead as a networking interface made us more curious about what's happening on other sides and, importantly, where taller fences stand that limit an area's current level of inclusivity and overall spatial conclusions.

## Reflections

### Newsroom Collaboration

#### *Sustaining newsroom collaboration despite competitive hesitations*

The project team implemented a set of indicators to help measure the productivity and impact of its approach, one being the level of newsroom collaborativeness and participation. The project relied on the combined effort of the newsrooms, and, therefore, their engagement was critical to the outcome. Traditionally, local newsrooms that serve the same geography are competitive and avoid strategizing with one another in a professional setting. In recent years, journalism has seen an influx of newsrooms that have become more open to collaborative opportunities such as county-wide or state-wide editorial projects. Collaboration is undoubtedly a valuable evolving movement within the industry but requires newsrooms to alleviate competitive barriers for it to reach its potential. Keeping an eye out for factors that may reduce or activate those barriers was an important responsibility for our team.

When initially planning the Bay Area News Collective, we encountered competitive tendencies and hesitations with many newsrooms we proposed the project to, including ones that did and didn't proceed. The prospective newsrooms were intrigued by the project's primary collaborative focus but hesitant due to conflicting reputations or goals with other newsrooms we were considering. After experiencing this sensitivity early on, we planned the project to be carefully aware and measure collaboration between newsroom partners. We measured their collaborativeness by keeping track of the consistency and quality of their input throughout the year, including meeting participation, geotagging stories, and feedback on deliverables. Overall, as expected, each of these activities encountered some level of collaborative limitation that required us to rethink our approach.

In the next few pages, we explain two of these limitations to share the resolution we learned or implemented to improve collaboration.

## Reflections

### Newsroom Collaboration (continued)

#### 1. Collective Agreements

Our goal for each project activity was to encourage and acknowledge diverse contributions across all newsroom partners. Before engaging in activities, we often heard the newsrooms wanting agreement on how other newsrooms would participate. These agreements came in different forms and times but had the same purpose: to hold all partners accountable for collaborative contribution.

Early in the project, during the data gathering phase, we realized the sensitivity of how data from all newsrooms would be used, including geographic trends for each newsroom's coverage. Therefore, we wrote a Data Collection and Reporting Policy ([Page 6](#)) for all stakeholders to agree on what data was collected, its appropriate uses, and what required additional approval. Similarly, the newsrooms agreed on the type of analytics they would share with the group during the experiment. Without these agreements or opportunities for people to speak up about them, the newsrooms would have likely been more cautious and less open with their participation.

These agreements moved our capabilities and partners into a new level of collaboration supported by collective transparency and trust. We found this reduced pressure coming from particular newsroom partners and allowed them to be more inquisitive and resourceful to learn outside of their independent effort. For example, one newsroom representative told us how she became "curious how each newsroom would use the data for their own purposes." We also noticed this interest with other partners as they exchanged questions about advice that they could take back to their team.

"Our trust is deeper now"  
"We were open before, but now more open"

## Reflections

### Newsroom Collaboration (continued)

#### 2. Team Inclusion

The project team planned monthly meetings that required a single representative from each newsroom to be in attendance. These representatives had first-hand experience in the collaboration by engaging in discussions, reviewing plans, and having voting power for the project's decisions. At some meetings, the representatives asked if other team members from their newsroom could join, such as higher-level editors, photographers, and interns. The project team welcomed all requested invitations, and the additional attendance proved to bring more diverse perspectives and experiences to the room.

Near the end of the project, a newsroom partner who had requested invitations expressed how beneficial it was for her team but wished the project integrated the opportunity more. For example, the project team could have given out invitations initially rather than waiting for a representative to ask for one. One representative explained how, in general, they want to encourage team members at all levels of the newsroom to have experiences outside of their day-to-day tasks, which help put together a more comprehensive picture of the newsroom's role.

Additionally, we received similar advice from another newsroom that encountered hesitations to participate. We learned how we could have avoided uncertainties if more newsroom team members had been aware of the project's intentions, goals, and activities earlier on. They would have been gradually introduced to the project's inner workings and would become less hesitant with big decisions or voiced concerns before moving forward in sensitive directions. In this case, as valuable as the individual representatives' abilities and perspectives were, they had limited capabilities or knowledge that steered the project on a pathway different from how others may have suggested.



## Reflections

### Planning & Scheduling

*How our initial timeline and activities changed and what was missed*

The project's timeline was defined to first conduct research, focusing on passing a certain threshold of gathered data and insights before moving forward with experimentation. Naturally, these initial plans didn't fall into place as expected. We encountered delays and limitations that required us to adjust deadlines and goals, consolidate or eliminate activities, and other changes to find alternative ways to most effectively work with our developing collaborative environment.

The next few pages include two examples of adjustments we made or wish we made during the project.

## Reflections

### Planning & Scheduling (continued)

#### 1. Selection and Execution of Activities

The first few months included specific goals for the number of geotagged stories (500) and residents interviewed (50). In the middle of this research phase, we began to notice limitations or challenges to gathering that data, such as not yet being able to geotag stories at a broad city-level or county-level, a feature that became available later, and difficulty conducting outreach for resident interviews. At this time, we asked ourselves: “Do we continue with the data we have *or* spend more time formalizing our research?” We ended up doing both to some extent but regret not rephrasing it into a non-binary question, such as: “How can we utilize the data we have *and* build onto it as our research continues?”

We moved forward by focusing on completing the research but reducing the targeted number of resident interviews. This change required a two-month extension for data collection and synthesis, which delayed our start date for experimentation. As summarized in the Geotagged News and Resident Interviews sections of this report, the completion of this research gave us confidence in making decisions for possible next steps. Our chosen direction for the experiment did prove valuable and was an incredibly collaborative experience. However, partners did share later on how they wished we could have done more experimentation.

“Wished we could have explored more experiments together and collaborations with other organizations.”

A newsroom partner later suggested how it may have been more beneficial to “put two things in parallel in the timeline just in case one gets delayed, the other could keep going.” Considering this, we can imagine a synchronous research and experimentation process where a collaborative prototype could have been made early with existing resources then gradually expanded alongside the research. These smaller iterations would have allowed us to visually test multiple ideas with residents sooner while experiments remained lightweight. Instead, the approach we ended up taking was more complex to meet the needs of a larger research dataset which left less time to evolve and handle unexpected challenges.

## Reflections

### Planning & Scheduling (continued)

#### 2. Prioritizing High-Risk Tasks

While planning the project, the project team conducted an initial assessment for each activity that included its estimated timeframe, resources, and budget. These detailed plans were accurate and planned well. However, one detail that we did not take as critically was its probability for change.

In the second half of the project, mainly during experiment planning, we encountered tasks that either took longer than expected or became unsuitable. We labeled these as “high-risk” tasks, where their outcome was foundational and critical to any that followed. We identified most of these tasks as high-risk as they were happening, which was after we realized the significant level of approval or assistance needed to complete them. Unfortunately, some occurred near the end of the project where there was little time to adapt due to new requirements or delays.

To lessen the risk for these tasks and have a more seamless project performance, we learned it would have been better to prioritize them as early as possible, allowing the team to adapt to unexpected changes comfortably. Their prioritization would keep the project’s timeline sequential (i.e., tasks with deadlines) but be more risk-aware (i.e., tasks that significantly affect outcomes). For example, we scheduled the implementation of the experiment later in the project, after its design and development. We found this implementation task high-risk as it took longer than expected to receive approval from some newsrooms, giving us less time for iteration and analysis, which were essential to the project’s initial plans. By reprioritizing implementation earlier in the project, we could have spared more time to handle unexpected delays and would be ready by the time experiment testing and analysis was needed. Additionally, if the implementation hit a roadblock, its early prioritization would have warned us to find alternative directions sooner and not impacted other tasks scheduled later.

## Reflections

### What's Next

After the project concluded, many newsrooms have continued to geotag stories and review analytics reports through Bloom's platform. Similarly, as the monthly meetings have ended, follow-up meetings have been scheduled to continue discussing collaborative opportunities in the Bay Area. The team at Bloom plans to work with the newsroom partners as their curiosity follows new developments with location data in journalism and share more insights as they come.

Throughout the project, we set aside some activities or insights as we moved through the research and experimentation phases. We've made careful note of these as potential opportunities for further research and development — and perhaps you've caught some in this report yourself. Here are the main ones we would like to share:

1. How do the Representation Indicators compare and contrast with other factors found in other research?
2. What is the potential for the other Themes we identified, and how might those be designed and tested effectively?
3. What other patterns and Themes can be found from the Representation Indicators?
4. What is the potential for collective-curated RSS feeds and newsletters considering their use with residents and third-party organizations?

We hope this report was helpful for you to learn about the Bay Area News Collective, the processes and activities that made up our collaborative effort, and potential opportunities that future collaborations can explore.

To contact someone from our team, please visit this webpage for contact information: [bloom.li/advocacy/research/bayareanewscollective](https://bloom.li/advocacy/research/bayareanewscollective).

Thank you for reading!  
*Everyone at Bay Area News Collective*

# ATTRIBUTION

## Writers

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## Graphics

Maps, charts, and experiment screenshots: [Bloom Labs](#).

Representation Indicator icons: [Freepik](#), [Iconjam](#) and [Smashicons](#) from [Flaticon](#).