
Reimagining
the Civic Commons

How to use the Local News Sentiment Analysis Tool

Local News Sentiment Analysis Tool

The local news sentiment analysis tool provides a framework for analyzing public perceptions of sites and neighborhoods through the lens of your city's local news media throughout the course of a year. It provides data on public perceptions of sites and of the neighborhood, a signal that indicates how often a site or neighborhood is discussed in the local media and whether that discussion is positive or negative.

You can customize the [local news sentiment analysis tool](#) for your site, using these instructions as a guide to help you select keywords that help you catalogue and analyze local news stories.

Instructions

Step 1. Identify at least two major general circulation papers with an online presence in your city to track.

Step 2. Identify the keywords related to your site and neighborhood that you will track over time.

While there are several subscription services to query keyword mentions in news articles, this tool uses Google's search function, given that the search engine is free and familiar to the majority of users. Keywords should be limited to common names for the site(s) and neighborhood in question.

Step 3. Creating the search query.

To execute the search, set up your query with the following framework at google.com:

- Each search term must be enclosed in quotes (e.g. "city park")
- Between search terms use the advanced search operator "OR" to ensure that your search result is inclusive of each keyword entered. (e.g. "city park" OR "downtown park")
- At the end of your search term query, include the website link of the news publication you wish to search using the following syntax: site:[website]. (e.g. "city park" OR "downtown park" site:www.mytownspaper.com)
- Google limits your search to 32 words, not including search operators or the name of the news publication. Each word within a search term is counted. For example, "city park" equals two words, while "park" equals one word.
- Use Google's search tools to define a time period for your search. To do so:
 - Hit Enter or click "Google Search" to perform your search.
 - On the results page, click on "Tools" just below your search bar on the right-hand side.
 - Click on "Any time," and select "Custom range..." from the drop-down list.
 - Choose a custom date range from the pop-up menu. We recommend collecting and inventorying news articles on a monthly basis, performing the search query a few days after the last date of the search period.
- To perform the search on multiple news websites, use the same search query, changing only the "site" operator for each website.

Data Collection Tips

- 1. Road test your keywords first.** Since the same search query should be used consistently throughout your analysis period, we recommend testing your keyword combinations and looking through the results for 1-2 months before settling on a final search query. For example, if you are in Akron and your neighborhood of focus is Downtown, you may be able to filter out many irrelevant results about other cities by using the keyword “Downtown Akron” rather than just “Downtown.” Once you have finalized your search query, make sure to save it. We have created a tab called “SEARCH QUERY” in the Analysis Spreadsheet to give you a place to save your query.
- 2. Developing a sense for sentiment.** As you inventory news articles, the person performing the sentiment analysis task will occasionally need to make a judgment call about whether an article expresses a negative or positive sentiment. We recommend keeping track of the articles that were more difficult to categorize, and the reasoning behind each article’s assigned sentiment, so that your organization can track sentiment consistently if the task of analyzing sentiment is handed off to another person.
- 3. Inventory your news articles on a monthly basis.** We’ve found that by performing these searches on a monthly basis, you can ensure that you spend no more than 1-2 hours per month inventorying news articles. Performing the search on a yearly basis is doable, but adds a significant amount of time to the task when performed at the end of the year.
- 4. Analyze your results on a yearly basis.** We’ve found that an annual analysis provides the best snapshot for understanding local news sentiments over time.
- 5. Remove irrelevant results.** Depending on your keywords, and the local news site, you will likely have to do some manual filtering to remove irrelevant results. For example, a search query for the “Fitzgerald” neighborhood in Detroit returns both stories about the neighborhood and people in the Michigan area with the last name Fitzgerald. While it would be preferable to have a tool that automatically eliminates these irrelevant results, a quick scan by a human is far more accurate than trying to build a more complicated search query.
- 6. Make note of significant events that create peaks and troughs in your data.** As you inventory news articles, you may notice spikes in your data due to major events, press conferences, etc. We recommend noting these spikes to help you tell the story behind your analysis.

How to Analyze Data

Once you've run your search, Google will display one or more pages of articles that appeared on your selected news website that contain one or more of the keywords in your search query. The next step is to inventory relevant articles in your search result and note whether the sentiment of the article is positive or negative. By using the included Local News Sentiment Analysis Spreadsheet for this task, your inventory will automatically generate the relevant metrics and infographics. To do so, follow these steps. You can also check out the [Example spreadsheet](#) for an example of how to enter your data.

1. Open the [Local News Sentiment Analysis Spreadsheet](#).

2. In the first tab, titled "SEARCH QUERY":

- Enter in column B the details requested in column A.
- Replace the sample paper names with the names of the papers you are actually searching, and add any additional sources in the next rows.

3. In the second tab, titled "INVENTORY SHEET":

- Each row represents an individual news article. For each article, first enter the month and year published, the title, and the article's web address.
- Next, indicate whether the article expresses a negative or positive sentiment about the site and/or neighborhood.
 - If the article expresses a positive sentiment, place a '1' in the appropriate site or neighborhood column.
 - If the article expresses a negative sentiment, place a '-1' in the appropriate site or neighborhood column. A negative value in the negative sentiment column is necessary for the calculations and infographic in the "ANALYSIS SHEET" tab.

4. Charts will automatically generate on the third tab. Be sure to enter data into the second tab correctly, or tables will not generate correctly.

5. On the third tab, the key metric and infographic is the "CUMULATIVE ANALYSIS" section. We have included separate site sentiment and neighborhood sentiment charts in case your team would like to view those results individually. We recommend documenting a full year of sentiment analysis before finalizing and sharing your analysis results.