

# Data Collection in Twitter With API

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## Introduction

Twitter is currently one of the most imperative and powerful social media platforms, becoming one of the significant channels for public communications.

Studies center on the applicability of the Twitter search stream API, which often provide a coordinated keyword prefixed by hashtags '#'. Researchers have used the Twitter's API platforms to access, analyze and store data. The API is an interface that has been designed to be primarily used by Twitter clients.

However, the interface can also be applied in tracking current events by other users especially researchers by customizing specific keyword and hashtags. The Twitter API allows researchers and other users to track and inevitably apprehend tweets with particular hashtags or keywords.

Therefore, in an advanced usage, the API provides interface that allow researchers to gather more information off a particular social media services that can be used for quantitative or qualitative analysis due to the real-time data within the social media network such as Twitter. As such, Twitter's open APIs offers unprecedented opportunity for physicist, linguists, computer and social scientists to study the behaviors of people within the social media platform.

## The API as a Data Collection Tool

As indicated, Twitter provides a critical degree of data access through its Application Programming Interphase (API) platform. The APIs platform offered by Twitter allows researchers and other users to track and inevitably apprehend tweets with particular hashtags or keywords. The increased accessibility of Twitter's information through the use of its API platform has enabled researchers to conduct studies on various aspects of human behavior patterns and to share most relevant information through the application of

specialized tools within the API platform. The capability has enabled the fields to conduct studies on various fast evolving events.

Such web-page applications have provided value-added services to the Twitter users. For instance, Twuffer web application allows Twitter users to schedule tweets for future dates. Twidentify is also another web-based Twitter search engine that allows users to examine tweets through the use of keywords. Such tools are normally applied in the API platform and enables researchers to easily follow trends on a particular event through the application of keywords or certain words prefixed by the hashtag.

The Twitter API uses three ways of searching through the application of keywords. One of the methods is the trend search, which allows researchers to track the popularity of the keywords over a particular time. The second method is the basic Twitter search that tends to track people who utilize the keywords on their tweets and re-tweets. The final method is the search on influence. The data from the searches are normally sorted in tweets and re-tweets. Such information is provided in diverse formats including time series graphs. The trend search, basic Twitter search and the search on influence form the foundation of various models that researchers have utilized to study innumerable behaviors and events patterns on Twitter.

APIs as a research tool offers significant opportunities for the studies that are either qualitative or quantitative. The API platform allows easy automation of data collection, analysis and storage. The cleaning and storage of data are also conducted sequentially and automatically.

Combined with other web-based digital research tools, the data accessibility is traced to their usage patterns in greater detail more than what other data collection methods such as interviews and surveys provide. Through the use of API, the data collection is prompt and non-intrusive.

The study on the topological characteristics of Twitter formed the foundation on which other studies using the API as a method of data collection to examine the attributes of other social media networks are based. The Twitter's API offer unprecedented opportunity for both physical and social scientists to study the behaviors of people within the social media platform.

Various measures and algorithms can be applied in the analysis of data sets from various social media networks. The free Twitter API is a critical data collection tool that has led to the development and application of studies in diverse areas including humanitarian assistance and disaster relief and management. Given the large volume of data, the researchers applied the Social Network Analysis (SNA) to scrutinize the data and come up with the relationships under the study. Through various analytical models, researchers can come up with varied patterns on data. The ongoing application of Twitter API on main events has emphasized on single cases

The occurrence of alternative analysis through the use of low-volume data. Instead of using high-density tweets, the researchers analyzed low-volume tweets based on keywords though not linked to spikes in tweets-per-minute. The events studied are not readily detected by the current API event-detection algorithm, which depend on the tweet volume to drive the analytical engine. The study demonstrated that there are various ways in which Twitter can be conceptualized through the application of theories integrated within the study.

## **Conclusion**

The studies of events and human behaviors on Twitter through the application of APIs have taken various forms and procedures. The APIs enables social media researchers to have an easy access to data particularly from the social media companies such as Twitter and Facebook. In essence, APIs interface enables third-party users to attach novel add-ons to the prevailing services.

The APIs provides interface that allow researchers to gather more information off a particular social media services that can be used for quantitative or qualitative analysis. In this discussion, it has been shown that the research tool has been applied to study events that range from the crisis to business management on Twitter. However, the use of the tool has various deficiencies that should be considered while conducting the studies on the social network.