

# SURVEY ON EYE WITNESS TRACKING USING API

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## Abstract

*Geo-tagging is a process in which a device can be located using the geo-location of that device. Geo-tag consists of Meta data comprises of the latitude, longitude co-ordinates; they can also include altitude and place names in it. This Meta data is responsible for giving the location of any particular devices. It can help users gain data about particular location. Location specific information can be gained from the device. These features are being used by Location based services to provide better services to the user. Location based services can be query based and can provide end user with useful information. Location based services are being provided by social media application like Instagram and Twitter.*

**Keywords:** Geo-Tag, Digital Foot Print, API, Location-based social networks (LBSNs)

## 1. INTRODUCTION

With the surge of ever growing technology it became easy to tackle various problems and find solutions to the same. In this project, we focus on building a web application which will be developed using the grounds of geo-location technology. There have been cases in which an event/incident occurs and there are hundreds of people who witness that event/incident. There are circumstances in which unexpected situations or emergencies take place and people are well aware about the incident. But an individual steps back when being asked about the same due to reasons threatening their security. Due to this reason the investigation for the incident or crime scene remains unclear. But, with the growing trend of involvement of an individual into social media activities, it has been realized that the person reporting the event on social media instead of being the physical evidence is high. People report their presence and negative acceptance to such situations through social media alternatives like instagram, twitter, etc. without realizing

that they are sharing their location which can be used for positive outcomes to complete the investigation. Also during emergencies like natural calamities, a group of people/children who are misplaced can be tracked if the pictures of these individuals with their location are shared. Thus geo-location technologies can be used for a number of purposes and used to tackle various problems.

## 2. REVIEW OF LITERATURE

**A.** Using Large Scale Aggregated Knowledge for Social Media Location Discovery

- This work was presented in 2014 by Dennis Thom, Harald Bosch, Robert Kruger, Thomas Ertl with algorithms and methods to use geo-location facilities provided by various social media's to generate vital insights in areas where awareness is important, such as in case of any disaster or crisis in that particular location. Fraction of the data is actually provided by the meta-data in geo-tags or even in GPS information of their origin.
- In this work two strategies were introduced that are suitable to derive probable locations of site to social media messages of various locations. They are based on accumulated knowledge about the user and/or the textual content of the message. Using the prototype implementation and a collected data set comprising more than one year of geo-located data.
- Method used were: Term density maps, User history based estimation, Evaluation[1]

**B.** Discovering and Profiling Overlapping Communities in Location Based Social

- This work was carried out by Zhu Wang, Daqing Zhang, Xinghe Zhou, Dingqi Yang, Zhiyong Yu and Zhiwen Yu in 2014, with recent surge of location based social media application the location based data can be utilized.

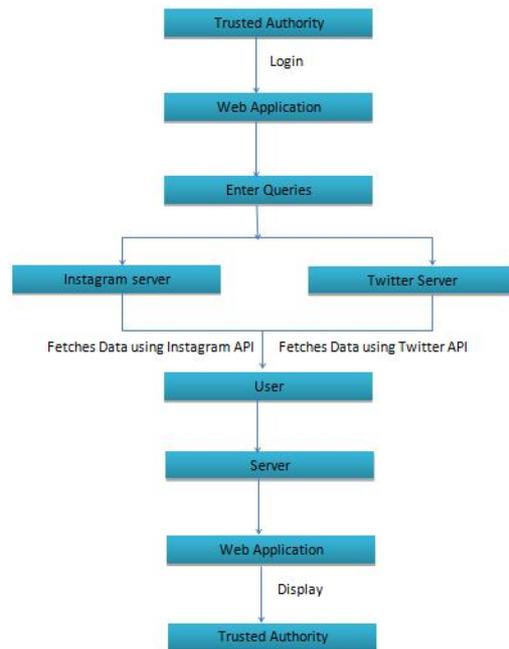
- The location based service networks have huge amount of digital footprint locations, profiles, and online social connections become accessible to service providers.
- This paper check-in traces at venues and user/venue attributes; we come out with a novel multimode, multi-attribute, edge-centric co-clustering framework to discover the overlapping and hierarchical communities of LBSNs users.
- Method used: User venue check-in network, Multi-mode, Multi-attribute edge clustering framework, Feature description, Feature Normalization and Fusion, Clustering algorithm, Performance Evaluation[2]

**C. Mining frequent trajectory patterns and point of interest from Flickr photos**

- There is a massive opportunity to mine human movement data from geo-tagged photos.
- A significant opportunity exists to demonstrate the application of pattern mining algorithm using geo-tagged photo dataset.
- Flickr API is used to collect geo-tagged photos in the framework consisting of three main components: pre-processing, TPM and Visualization.
- Geo-tagging is a technology that includes a geographic reference inside the meta-data of specific types of content: photos, videos, and SMS.
- Method Used: Clustering, Tag mining, Sequential TPM[5]

**3. Proposed System**

This system will consist of a web application which will support the various objectives mentioned above. In this application, a search protocol will be initiated after which the sequential steps will be carried out. These sequential steps will include submission of query which will include location in form of latitude and longitude. The application will have enhanced option to get more precise results by providing options to input time-stamps and the radius of the location of that particular area for which the search is to be initiated. Once the query is submitted with all the required fields, the search protocol will give the desired results for that particular query. The results will provide all the details of the user present at that specific location with the specifications mentioned in the query.



**Fig1: System Block Diagram.**

**4. METHODOLOGY**

**IN ORDER TO BE ABLE TO USE OUR WEB APPLICATION, WE WILL BE USING THE FOLLOWING APPROACH:**

- Step 1:** In this phase the user will enter the web application through a particular domain.
- Step 2:** After entering the domain URL the authority will be redirected to the web application page.
- Step 3:** On the web application page, the authority will have to login to ensure that the authority is a trusted one.
- Step 4:** After successful login, the authority will have to enter proper credentials in the required fields to proceed to the execution phase.
- Step 5:** If the credentials are correct, the web application will request the server for the required data.
- Step 6:** This data will be fetched by using the API's integrated in the web application by verifying the metadata with the credentials from the web application with servers of different API's.
- Step 7:** After proper verification, results will be displayed.
- Step 8:** If the credentials are wrong, continue from step 5.

**5. OVER VIEW OF SYSTEM**

This system aims to develop a web application that provides database about important events by using geo-location technologies through various, application programming interface.

The various objectives of this web application are: Providing immediate access to officials for easy collection of data. Investigating geo-tags can be used for good to explore how journalists or authorities might locate potential by-stander to important events such as a crime or accident scene using social media. Geo-tagging can also be used to locate trapped people during natural calamities. It can also be used for getting information about any particular place at a desired time frame. This web

application can be used by various law enforcement departments. The access will be strictly through secure ID and Passwords. It can also be used during disasters and natural calamities. It can be used for collection of meaningful data and for comprehensive analysis.

## **6. CONCLUSION**

Thus we propose to make the best use of available location based services through various social media applications by using their application programming interfaces (API's) and give a practical solution to resolve issues.

The access to the web application will be restricted only to the authorized personals eliminating any security threats for the misuse of this web application.

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