

## Twitter Project Notes

The project will utilize a high-performance computing (HPC) resources including a local small cluster containing 2 nodes, 10 cores, 25 Gigabytes of memory and resources provided by the Janus Linux Cluster. The project will set aside 10 Terabytes of local storage for project activities. In addition, the project will provide archiving utilize Google Code hosting service to provide long-term archiving and future collaboration. The service (<http://code.google.com/projecthosting/>), Wordpress local web server. Also, the service provides project wikis to allow for project management. Project and data management services include:

- a permanent URL
- secure replicated online storage location (multiple copies of data)
- accurate metadata
- a globally accessible repository
- the option for contextual linking between data, and published research results
- RethinkDB Access

The project will examine each research question through, experimental analysis of data streams. The social media sites Google+, Twitter, and Facebook all provide live data streams: In which actors on such sites public data can be programmatically extract using free/existing application programming interfaces (APIs) to provide a never-ending stream of data.

- **RQ1:** How does socio-technological interactions impact trust within the physical world based on cultural elements with information generated from an academic library?
- **Data:** The data streams will enable the project to conduct linkage-based, structural analysis to determine communities, links, and an overview of global evolution behavior with respect to different aspects of engagement.
- **RQ2:** How do ubiquitous social media facilitate or hinder patterns of temporal trust between individuals, declared groups or public entities?
- **Data:** The data streams mentioned above provide a rich set of temporal characteristics of social media based engagement in which evolving communities develop and disappear. All of the social media services that will be utilized in this project provide mobile information within the data stream information such as Twitter which offers GEO information. This service provides information on users location, vicinity to events. This information will enable us to measure dynamic preferential attachment, in which links between actors can be assessed on their heterogeneous preferences for other actors.
- **RQ3:** How do individuals or groups form dynamic communities within social media, which include trust?
- **Data:** The data streams will provide the project with the necessary data (followers, friends, keywords, language, gender, and geo-location), to enable the implementation of algorithms to infer linkage, which are not yet know in the social network world, thereby enable the prediction of trust associations within the online communities.
- **RQ4:** To what extent do network structures emerge based on library engagement elements in both unique and non-unique ways within particular social media platform such as Twitter?
- **Data:** In social media networks nodes in the network maybe labeled using tags, these attributes can provide information about the propagation of information, in which information is correlated

to network structure. Therefore, tagging information provides significant information about influence across actors, who are the most influential actors for influence spread i.e. trust among the group

- **RQ5:** How will user names and ids be analyzed for social engagement elements with community-generated content? Quantify

Data:

- **RQ6:** How will the duration of engagement enhance data abstraction trust mechanism?

Data:

- **RQ9:** How would users use a social platform to become more engaged with their community? Quantify

Data:

- **RQ10:** How the search results will further exam to determine the complete geographical location of the users? Data Map

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- RQ11: How the set of streaming APIs offered by Twitter give developer low latency access to Twitter's global stream of Tweet data.

- RQ12: How we store some information on the server that will remain even after the server shuts down, and then we'd like to display this information to the user.

- RQ13: How can observing twitter data be used to determine the popularity and semantic of a specific book, and how would doing so be useful in library management.

- RQ14: Could socio-technological engagement be used to affect the outcome of a political event?