15-214: Framework Description

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Our framework is centered around a the core of every social network: posts. We chose posts because of the variety of analyses that can be performed on what people choose to say at a certain time.

To query posts from social networks, our Framework provides a DataPlugin interface that asks the user how to query the and parse the data. The data is then processed in our Framework and sentiment analysis is done. This is a core analysis of a post, and as such we chose to include it in our Framework. After this, all of the Analysis plugins are notified of the new data, and are updated accordingly.

The clients of the framework will get to interact with the data the framework provides through filters. Filters allow the client to filter the posts to only match certain requirements, and those posts will be the only ones provided when they are told that new data is available.

The clients can use any third party libraries to do the visualization, or use one of the components we provide in our own visual library. These analysis components can even be interactive, and dynamically update the visualizations.

Additionally, the client can pull data from any external network. We only require that the names of the Data Plugins are unique.

The goal in designing this framework was to provide very extensible ways for the clients to implement plugins, both on the analysis and data querying sides, and given the simplicity of the Framework's interfaces and simultaneously freedom it provides to plugin-implementers, we think it definitely accomplishes this goal.