PHASE 1 - Group 2
REPORT on Big Data Group Project

With the increase in usage of social media, many sectors are taking the advantage of this platform to promote their business . One such sector is a Public Library. This research paper provides us with a detailed report on how public libraries uses the social media platform like *twitter* to analyse the data,the ability to discover users' interests greatly help libraries to engage user through strategic interactions. This paper also explains how these public libraries use these strategies to engage users more effectively.

In today's world of vast use of social media the inundated tweets helps the libraries educate themselves
with the knowledge by entering into the user's space. To analyse this research a sample data from 10 public libraries are collected and is analyzed. On the basis of the data collected from the tweets various strategies have been developed:

- *Literature Exhibits:* This strategy deals with posting book covers ,historic archives etc
- *Engaging Topics*: Creating appealing topics and contents for users.
- *Community building:* Provides a way for user to communicate with their community.
- *Library Showcasing*: Updates user with the new their new launches.

To analyse the data a machine learning toolkit called MALLET is used. It takes every tweet and bifurcates the data on some pattern and categories them into related strategies.This tool when executed on these 10 public libraries,gave a lot of information on strategy changes in different libraries.

From users response checking and response distribution with four strategies, a finding is made that suggests that the four strategies do not work equally well in terms of user feedback in every library.
It is noticed that the engaging topic contributes the most to user feedback. Literature exhibits also helps libraries better engage their users. Users give less feedback to community building and library showcasing.

Authors have also done a case study where they have analyzed top 10 tweets from famous public libraries. The quantitative analysis of top 10 popular tweets demonstrate that library users prefer participating in active services with popular trends created or retweeted by library. Even if librarian could not write an attractive tweets, they can engage users by retweeting the tweets from famous twitter pages or blogs.

The library has been converted from a book reference place to information sharing and communication center.To analyse the tweet data and creatively launch popular trends and related topics for better understanding of users interest and to improve their service to engage the users effectively.