Centralized Digital Media for Easy Broadcasting

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Abstract: Social networking site provides different features like social networking, posting data, photos, links and tweet etc. Also different organization uses multiple social media to update their information like offer/deals helps the customer to boost the business growth. Any user or organization may exist on different social media sites. So, it is difficult to manage all these sites. This paper proposes the system which aggregate different social media API’s like Facebook, twitter on single platform. The objective of this system is to post users data on different social media sites simultaneously. It also provides different features like sentiment analysis, notification and filtering, searching by keyword, scheduling, smart inbox.

1. Introduction

The social web is network which provide such a platform that helps to link people to share information like images, link, status, tweets, etc. They may cause information overhead. Also, industries make their product and to advertise that product they use multiple social media account. They use various social media like twitter, facebook, linkedIn, youtube and their websites etc.

One organization uses number of network based tools to provide day to day updates to the customer and get the product services online. So, organization want to post any data they have post it on every social media and website separately. To collect and to post the information on different social media is time consuming and difficult to manage and it require huge man power. User have to login each and every account separately to update particular account.

API integration of social media is the best solution to these problem. Because of API integration on one platform user can handle multiple social media simultaneously. So, there is no need to handle every social media accounts separately. We can login all these social media on one platform at a time and can manage it.

This system helps people to post their data simultaneously on multiple social media’s. The system support facebook, twitter, linkedIn, youtube and websites. It also provides scheduling, plug-in, smart inbox, notification filtering, sentimental analysis, search by keyword by aggregating API’s of these social media.

2. Literature survey

API integration is a part of OSN. Sentiment analysis is key part of our system. The work done in this field are as follows:

Matteo Zignami [1], presented the paper on “Following people’s behaviour across social media” in 2015 11th International conference on signal image technology and internet based system. In this paper they perform analysis on same user across multiple social sites. They concluded that, on average a user registered on five social sites, while more than 17 have joined 17 platforms at most, 56% of user uses at least 3 different platform and 73% of active user uses at least two social media sites.

Charu Vismani [2], presented the paper on “Study and analysis of social network aggregator” in 2014 international conference on reliability, optimization and information technology, India, Feb 6-8-2014”. In this paper they develop a crawler that extract the information of the user from his several social media accounts. After extracting the information, it will create a graph of his network and cluster the events according to the information and store it in the database. The result will be user’s information that is in his multiple social media platform.

Robort Krager [3], presented the paper on “Integrating predictive analysis and social media” in IEEE symposium on visual analytics science and technology 2014 November 9-14, Paris, France, 2014 IEEE. In this paper they present a framework for the integration, analysis and prediction. This framework consist of tools for extracting, analysing, modelling trends across various social media for performing the task. Analyst can utilize the system to explore and combine information and underlying mechanism for similarity matching and data filtering can help user quickly engage exploratory data analysis as a part of the building process.

Yongku Li [4], presented the paper on “Friends or Fose: Distributed and randomized algorithms to determine Dishonest Recommenders in online social networks” in IEEE transaction on information forensic and security, vol. 9, No. 10, Oct 2014. In this paper, they perform a set of fully distributed and randomized detection algorithm based on idea of shrinking suspicious set so to identify dishonest
users. Detection algorithm allows users to independently perform the detection so as to discover their dishonest neighbour. They also provide mathematical analysis or quantifying the effectiveness and efficiency of algorithm. It propose a detection framework to identify dishonest users in the OSN. It presents set of fully distributed and randomize algorithm and also quantify the performance by deriving probability of false positive or probability of false negative.

Aditya Patel [5], presented the paper on “Using social big media for customer Analytics” in IEEE conference 2014. The paper presents a model for doing customer analytics on social media using big data for improving target advertising and improve business decision making. The future work of this paper is, it is possible to extend the system by analysing the users good or bad comment or reply and sentiment algorithm using NLP i.e. natural language processing.

Xin Chen [6], presented the paper on “A web based tool for collaborative social media data analysis.” in cloud and green computing, 2013 3rd international conference. In this paper, they uses a social media such as twitter and facebook for understanding the human behaviour. These human behaviour is very complex in nature so it require more analysis. It uses large scale data analysis. The developed a web base tool SWAB that combine analysis and large scale data mining technique. Tool provides collaboration between researcher analysis on textual data from user’s posts and conversation after that it combines the result. It analyse students posted content on twitter.

Neha S. Joshi [7], presented paper on “A feature dependant method for sentiment analysis to understand user context in web” in CPGCON 2014, Third post graduate and research scholar symposium university of pune. In this paper a feature level analysis is considered which is known as the fine grained analysis and takes each and every entity in review and it’s corresponding polarity. The sentiment analysis is emotion base natural language. Their expression can be stated in the natural language and these natural language is useful to extract emotions from unstructured large data. Sentiment analysis used widely and successfully. The sentiment analysis methodology give a better accuracy result as well as it should be implemented less computational complexity.

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<td>7.</td>
<td>A feature dependant method for sentiment analysis to understand user context in web</td>
<td>Neha S. Joshi, (CPGCON 2014)</td>
<td>It do the sentiment analysis of the emotions. It extract the emotions from the data.</td>
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<td>8.</td>
<td>An analysis of positivity and negativity attributes of users in twitter</td>
<td>Mahnar Rashanaei, (ASONAM 2014)</td>
<td>It distribute the data according to the positivity and negativity. It refers the users data for distribution.</td>
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3. Methodologies

3.1 Java:
J2SE (Java 2 standard edition) java is required as language for development of the system. It is write once, run anywhere language that means compiled java code can run on all platforms that support java without need for compilation. The java language has are secure, robust, portable, dynamic, multithreaded, distributed, high performance, portable language.

3.2 JDK:
JDK is the development kit use to compile java program. JDK is developed by sun Microsystem. It is most widely used for JAVA sdk (software development kit ). The JDK has its some primary components are:

3.2.1 Java: The loader for java application.
3.2.2 Javac: It is a compiler used to convert source code into byte code.
3.2.3. Applet Viewer: This tool can be used to run or debug java applet without presence of web browser.
3.2.4 Java Doc : It is a documentation generator which is used to automatically generate documentation from source code.
3.2.5 JAR: It is used to packages selected class library into a single JAR file.
3.2.6 JDB: It is java debugger.

3.3 Net beans IDE:
The net beans IDE is an open source and free integrated development environment which support all java application type like web, Java ME, EJB and mobile application etc. Net beans IDE has modularity features. All the functions of IDE are provided by modules. It has large community of user and developer. Following are some features of Net beans IDE:

- Best support for latest java technologies.
- Easy and efficient project management.
- Fast and smart code editing.
- Rapid user interface development.
- Cross platform support.
- Rich set of community provided plug-ins.

3.4 GUI:
Graphical user interface will design using java awt and swing packages.

3.4.1 AWT (Abstract widow toolkit):
It is standard platform, toolkit for windowing, graphics and user interface widget. It is part of java foundation classes. AWT provides two level of API.

a) A general interface between java and native system and it is used for windowing events and layout manager. It contains:

- Several layout manager
- Interface to input devices like mouse and keyboard.
- A java.awt.datatransfer package for use with the drag, drop, and clipboard.
- The care of GUI event subsystem.

b) It provides some basic set of GUI widget such as button, textbox, AWT native interface and menus.

3.4.2. SWING:
It is a primary java GUI widget toolkit. It is also a part of sun Microsystem java foundation classes. It provides more sophisticated GUI component than AWT. Swing provides some advance component than AWT such as scroll pans, trees, tables, lists and tabbed panel. Swing component are lightweight and platform independent. It has pluggable look and feel. Features of swing component are Extensible, configurable, customizable, loosely coupled and MVC(model view controller s/w design pattern ).

3.5 NLP:
It is a study of interaction between human language and computer. It is a way for computer to understand, analyze and derive meaning from human level language in smart and useful way. NLP perform the task such as sentiment analysis, speech recognition, automatic summarization, translation, relationship extraction etc.

3.5.1 Sentiment analysis
In a sentiment analysis analyzer classifies the text or user comment as positive review or negative review about the product. Positive and negative review is analyzed by sentiword net library. To use the sentiword net we require the class SWN3.java and sentiwordnet. Sentiwordnet assigns to each word of comment the three sentiment score positivity, negativity and objectivity.

Example: Positive(Review):
- Quality is good.
- Excellent sound quality.
- Good battery backup.
- HD display is awesome.

Negative (Review):
- Not satisfied with battery backup.
- Poor camera quality.
- Worst performance.
- Will never recommend anyone.

The main title (on the first page) should begin 1-3/8 inches (3.49 cm) from the top edge of the page, centered, and in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs,
adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two blank lines after the title.

Figure 1. Sentiment analysis for positive and negative review

3.6 Serializable database:
Serialization is the process of converting the data structure or object set into new format which can be stored and reused later in any computer environment. Java provides automatic serialization which requires object that should be marked by implementing java.io.Serializable interface. After implementing the interface marks to the class as “ok to serialize” and then java handles serialization internally.

The java language allows developer to override the serialization process more thoroughly by implementing another interface which is externalization interface.

It includes two special methods that are use to save and restore object state.

It is also possible to serialize objects in java through JDBC (Java database connectivity) and store them into a database.

3.7 Euclidean distance:
The Euclidean distance or Euclidean metric is the "ordinary" distance between two points in Euclidean space. Using this distance, Euclidean space becomes a metric space. In general, for an n-dimensional space, the distance is

\[ d(p,q) = \sqrt{(q1-p1)^2 + (q2-p2)^2 + \ldots + (qn-pn)^2} \]

Euclidean distance is the only metric that is the same in all direction, that is, rotation invariant. This fits very nicely with the general qualities of our universe, which is also rotation invariant. All metrics are dependent on how the coordinate system is rotated to be meaningful.

4. PROPOSED SYSTEM

Figure 2. OSN content management system

We proposed to develop an system which will help to broadcast the data among multiple social media and also on websites simultaneously with multiple new features. The flow of system is as follows:

1. System will first take the input from user that is user-id and password of their social accounts and also the websites.
2. System will take the input and login to the respective social media. Once, registration is done user can upload their data, response to the comment, retrieve the data etc.
3. Whenever user want to post any data on different platform then system will take that data in the form of input and system get the choice of platform from user. Then system will broadcast that post on selected platform.

System also provides following features:
4.1 Scheduling:
If user want to post their data in future then, user can schedule the respective post with respective date and time. The post scheduled by user will
automatically upload on respective date with user concern.

4.2. Smart inbox:
When the other user comments to our post on any platform it will collect it in one inbox and we can also reply to other user comment even they can from any platform. Our comment also uploads on that respective platform.

4.3. Notification filter:
The notification is classify according to the different post and if there is any unrelated poet then system will neglect that particular post.

4.4. Plug-in
It also provides the features of plug-in. Plug-in is a small size window which is display on website. It will show the latest updates on your social account.

5. Conclusion
Any user or organization may have multiple social media accounts. They need to update their accounts by posting data, but it is difficult to manage multiple accounts at a time and it is also time consuming process.

This paper introduce an web application which allows users, organizations, institutes etc to manage their all accounts on single platform. By using this web application users can post their updates on different social media accounts simultaneously. This web application is not only to broadcast but also provides different features like smart inbox, notification filtering, sentiment analysis, plug-in, scheduling, search by keyword etc.

6. FUTURE WORK
The system provides features sentiment analysis through which system can filters positive and negative comments. In future we can do statistical analysis that is how many people liked, commented, shared any particular post on any particular social media site. The statistical analysis will show review of all social media sites so that it will be helpful for organization to measure interest of user in particular social media.

7. References