

Survey of Smart Social Media Bots For Digital Marketing

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Abstract- In today's world digital marketing plays a very vital role in the field of marketing. There are many tools available for advertising on social media platforms like facebook, twitter, instagram etc. To promote the page on social media, the main task is to like, comment and interact with the targeted users. The problem with available tools are, that the comments being posted are irrelevant to the post and are too costly for startups. Smart social media bots will be performing will scan the objects in the post and accordingly comment on it. Human like comments will be posted.

Keywords- Digital Marketing, Social Media, CRM, Image Processing, Automation Tools, NLP, Neural Network.

I. INTRODUCTION

In today's world everyone is coming online so the services which one has offering also have to come onboard in the world of internet. Marketing efforts are changing and becoming more dynamic depending on industry environment[8]. Currently every firm is utilizing web and mobile orientation applications in daily business activities to attempt and adopt the new technology tools on computer based automation system. Marketing managers should attempt to develop innovative and unique competitive product more effectively. Within B last decade development of communication is improving such as social media, which is shaping the strategy of marketing[7]. Improvement of social media is affected by the development of Internet. Federal Web Managers Council, defined the social media as an umbrella involves vary activities that integrate technology, Social interaction and content creation limitless[9].

which is providing opportunities for Small Medium Enterprises (SME's).Internet technologies like facebook, Instagram, Twitter are playing vital role in Digital Marketing. also Email Marketing, Digital ads, Media Marketing are the aspects of Digital Marketing[1]. Hence Social Media is becoming lifeline of every person in today's digital world and it is used to engage the potential customer. Since variety of people are there on every platform, it is task to distinguish them as our potential customer. To engage the customer, the main task is to like, comment and interact with the targeted

users, and that is where our proposed system will help to digital marketers to find potential customer and engage them.

II. LITERATURE SURVEY:

In today's era everybody is using social media be it instagram, facebook, LinkedIn, etc. These are affecting everything and commerce being one of them. We can reach to millions of people at a time through social media. Problem with social media marketing is that it is expensive with no confirmation that it is reaching the right audience. There is a need of platform which will extract features of social media to do marketing and increase popularity of products, understand viewpoint of the users.

Few systems are created which are able to do similar tasks like hootsuite. It is social media platform to carry out campaigns across various social networks such as LinkedIn, Google+, Twitter and Facebook for organization and businesses. It offers advanced functionalities for complete measurement and reporting purposes, such as tools for team collaboration, audience engagement, comprehensive analytics and account security.[10] Salesforce is one of the platform which is popular for CRM(Customer relationship management) which provides analyzed data and reporting.[3]

III. COMPARISON BETWEEN EXISTING AND PROPOSED SYSTEM

A.Existing System

Sr.no	Reference	Advantages	Disadvantages
1	Booster Bots: [10]	<ul style="list-style-type: none"> -They allow you to feature requests. -They provide free updates. -They create accounts. 	<ul style="list-style-type: none"> -Can only use on windows applications.. -Does not provide CRM for analysis. Comments are not human like.
2	Hootsuite [11]	<ul style="list-style-type: none"> -It can post to multiple social media websites with one click. - Being able to schedule posts in advance allows to have a greater presence on sites. - It can post on 30 different accounts at once which saves time. 	<ul style="list-style-type: none"> -They can be bit confusing to set up. We have also had to re-sign in a couple of times which is a bit annoying. - The Hootsuite dashboard in general is confusing and not very user friendly. - Users can't preview a post before sending it out. this creates many problems. -For small functionalities like posting on too there has to payment made.
3	Salesforce [3]	<ul style="list-style-type: none"> -For individual customers provides profile customization -unlike other software , no investment required. -Will update automatically 	<ul style="list-style-type: none"> -Difficulties in transition in transaction.Need to go through multiple screens for processing transactions. -Since salesforce works on its own cloud, it will not be accessible at times.
4	Microsoft Dynamics CRM [12]	<ul style="list-style-type: none"> -User friendly interface as it is a microsoft product. -Works smoothly whether on cloud, local system or hybrid system. -No need to purchase any infrastructure(hardware). 	<ul style="list-style-type: none"> -It will fit nicely with only microsoft products -You need to have predefined processes for the CRM to work better. -Server code adjustments are not permitted.
5	HubSpot [13]	<ul style="list-style-type: none"> -It makes easy to organize, track, and grow your contacts and sales pipeline -The HubSpot CRM adds the new dimension to the company's offerings and value. -The HubSpot CRM tracks customer interactions automatically, and provides valuable insights of customer behavior and making it easier to take follow up of products. 	<ul style="list-style-type: none"> -This system is not Robust as much. -Lack of advanced functionality:HubSpot's marketing software is a true all-in-one platform .They make an excellent addition, but there is lack of the advanced functionality to be the exclusive sales tools for most large sales teams.

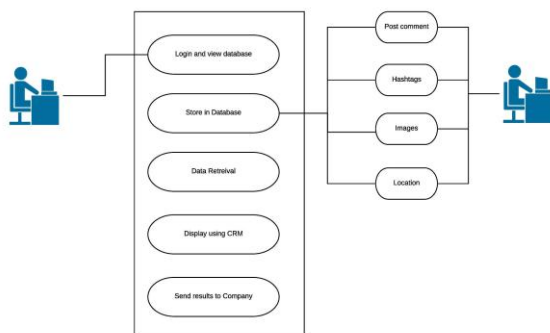
B. Proposed system

Proposed system allows better and advanced features. It is less expensive. It provides user diversity by providing wide range of social media. Easier targeting of potential customers by abundance of data from various social media. It will avoid geographical dominance as it will target users over the world. Provide accurate results[1]

IV. SCOPE FOR WORK

Proposed system:

The system mainly focuses on social media users and their activities. System admin will login into their social media account .It will now start monitoring concerned user accounts and their posts,user comments ,hashtags, location,etc.At this stage image processing on posts and NLP for comments comes into picture.Comments will be framed according to the objects recognized by bots which will be posted on concerned users' post.This process will be repeated for all the interested users [2].



The data from system admin's account is used for analysis of number of users interested,their views about product.

V. TECHNOLOGIES USED

A. Neural networks

ANN an information processing paradigm inspired by the way nervous systems in humans such as the brain, process information.[13] Basically the vital role of neuron is to process and transfer information. The way human brain trains itself to process new information in similar way neural

network trains itself according to desired system. Basically the neural network learns from past experiences just the way human learns. The neural network chooses the best algorithm and trains itself over it. If the algorithm ends with wrong solution it then aborts that particular path and trains itself over

a right path that may lead into a correct solution. The main task performed by neural networks are recognition of patterns and data classification. The two main approaches used to train neural networks are supervised and unsupervised learning. Supervised learning includes training of network which maps an input to an output.. Unsupervised learning includes training itself to get a desired output without any external help. There are many real time examples of neural network such as weather forecasting patterns, speech recognition, social media platforms.

B. Sentimental analysis

Sentimental analysis is the technology used to automate the reviews to a subjective content. Reviews are in the form of sentiments i.e good, neutral or bad. The algorithm consists of bag of words which defines the statement is good, neutral or bad. Before applying sentiment analysis algorithm, pre-processing is done. Pre-processing consists of tokenization, normalisation, stemming, lemmatization. After applying pre-processing, all the unwanted words are eliminated and the main words are described. The main words are compared with the bag of words and if the words are from positive list of words then it is reviewed as positive statement in similar way for negative statement.

C. Image recognition

Image recognition is the technology to recognise the objects in a given picture. The algorithm automatically recognizes the objects in the picture. Image recognition is widely used technology nowadays. For example, Facebook can recognise the face at 98% accuracy. This technology depends on classification. Classification is the matching of patterns depending on data. Suppose taking a picture of cat. We have to train the system by showing 1000 different photos of cats so that next time if the system detects cat in any photo is should recognize the cat. Image recognition is used in many fields such as e-commerce industry, gaming industry, automotive industry etc.

VI. EXPECTED RESULTS

The amount of ctr(click through rate) should be maximum on our page. This indicates the number of people visited our page. CRM should get displayed at the end representing probability of people interested and people visited our page.

VII. CONCLUSION

In this survey paper we study to target specific users based on their similar interest for promoting our page. Comments are properly framed sentence and related to the objects in th post, making it look like human comments and bots.

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