Instagram, a social media or news media

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Abstract

Instagram is the online photo sharing site and social media which allows the user to share, edit and upload their photos. Its first version was released in October, 2010 allowing users to post their photos. With the passage of time, update versions were released and its last version was released in August, 2015. Many of the researchers have worked upon this social site to induce different types of information. In my study, I have crawled dataset consist of posts of max 2k users of Instagram and concluded with the help of different experiments that Instagram is News media rather than social media. Homophily was found among only 44% users. Results have been shown by different graphs and existing communities inside the dataset have been found.

***Keywords*—** Instagram, homophily, community detection, graph, cluster

Introduction

The purpose of the research was to induce the differential part of Instagram whether it is a social media or news media. For this purpose, data set has been crawled through netlytic.org. Based on about 2000 records, experiments were made and concluded the distinction between social media and news media. Instagram has been in working since 2010 and many of the researchers have done work by using it with different perspectives. This social media has been playing a vital role for the researchers to work upon different areas such as sentiment analysis, connection among people from global world with small cost and finding the information about specific materials. Final results concluded that only 44% of the users have connection among them.

Methodology

In the proposed methodology, a paper "what is a twitter: a social media or news media" has been followed to implement this research. (Haewoon Kwak) the dataset of Instagram has been crawled and data has been collected from Washington zone. Data is based on 2000 records and entities of links and authors have been used to find the homophily among authors. Different methodologies have been applied over it to infer the results. Such as Gephi, R, SQL server were the tools tested during this course of experiments. By using different approaches, concluded graph remained same. Most influential approach was to approve the results was R. authors were taken as nodes and edges between them were identified using the common link among them. The most considering point was that people used this platform to upload their photos and photo editing. Associated people commented and liked their photos. The author who uploaded was not linked with other authors who also shared their clicks. It was the common pattern which was analyzed. That's why results are pointing this platform towards news media because of absence of expected links among Instagram users. Another fact induced from this research is that, we can grant this platform an advertisement media. The trend of dataset presented the independent links where users shared the news about different things such as sale at saloon and shopping malls, upcoming adventures, meeting of authorities and so forth.

Well nodes and links were imported in C++ with the help of visual studio. Then obtained adjacency matrix was imported in R. By using R, graph was generated and with the help of Graphs results were analyzed. Homophily and power law has been focused to prove the results to distinguish the scope of Instagram. Researchers have

worked upon the twitter to prove the results. In this case, Power law has been revised to check which the most focused part of usage in Instagram is but unfortunately, power law has been failed to infer about it.

Related work

Most of the researchers have been working to collect different results and analyzing Instagram through different approaches. For the implementation, some researchers have been followed. Some of the researchers have worked upon workload characterization and application (thiagohs). The researcher with other researchers has shown the advantages and disadvantages. The researchers had characterized the human behavior with the pattern of their sharing pictures. The advantage of this research was to cover the global area at low cost as well as there was a disadvantage too. Photos were share unequally spatially and temporally. To identify the regions of interest in a city based on data obtained from Instagram using participatory sensing system. \

Another researchers (Saedeh Bakhshi, David.A Shama, Eric Gilbert) have worked upon the behavioral phenomena online. Online and offline behaviors have been distinguished with the help of this research. Common point among the people is that they share their photos on Instagram. As we know, people can express their emotion non-verbally. Online expression of emotions and feelings has been studied through this paper. With the perspective of visual analysis, this research is useful. Sharing photos keep the people engage on this social media. With the help of dataset, ages and genders were classified and their comments and likes were identified.

Instagram is a source of sharing information about any particular related view. In this research (Alexandra Weilenman, Thomas Hillman, Beata Jungselius), it has been revealed that mobile phone camera have increased the communication among people via sharing their experiences. Instagram is the best source of sharing such type of experience. For instance, museum visitors have shared their experience while visiting the ancient museum. The benefit of this study is, Instagram users have got the information based on the views of museum visitors about the museum environment. Based on this research, link between online social media and museum site was established.

Experiments

Several experiments were performed to find the homophily among users of Instagram. Instagram is the social media which is now using for photo sharing. To find the association and link among users, dataset has been crawled from the Manchester and records of approx 2k users were collected through Netlytic. First of all similar authors were found and links between them were identified. The experiment was made on 150 users first. Later on the same experiment was performed on 2k records of users. A slight difference was occurred though output remained same. Homophily was found only 44% among the users. The reason behind it was users have no link with other users who shared their photos. Homophily was found among only those users who commented on the single photo/video uploaded by any author. On its basis, it was analyzed that Instagram has been treated as news media rather than social media. To validate our result, we have extracted nodes as users and comments among them is treated as links. Resultant graph showed the independency of users. Small clusters represent association among users. This paper contains some of the experimental results to demonstrate the results with the help of graphs. Such graphs have been stated below.

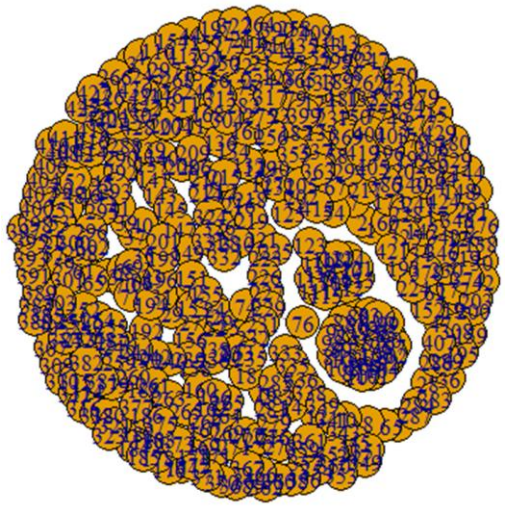

Figure 1 Graph

By focusing on the narrated graph, we can induce that there are some smaller communities exist but it is difficult to. Identify them clearly. Then clusters were tried to identify and resultant clusters are stated below.

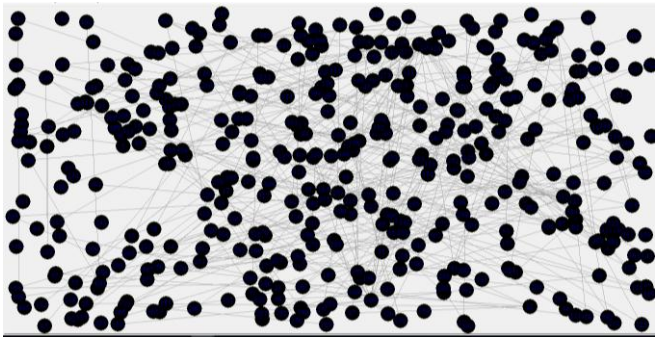

Figure 2 Connected graph

The view of overall edges among the nodes of this graph has been obtained as following. But there is a flaw in this presentation of graph. That is we are unable to identify the communities among these graph. A lot of commands were run to find out the clusters, edge betweenness and community identification. After running those commands on R, we have extracted these results.

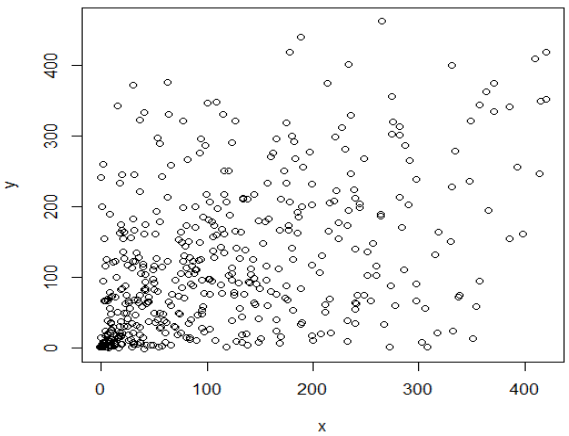

Figure 3 Scatter graph

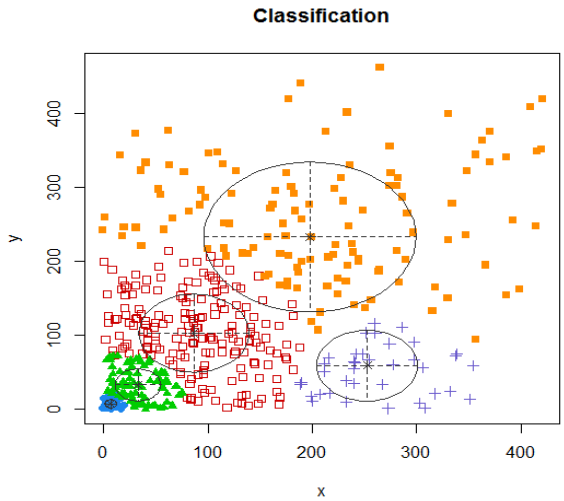

Figure 4 Classification

We may run graph classification for this purpose. But in this paper we have obtained the classification through the commands on R. we indentified 5 ideal clusters according to our results. These clusters have been identifying with the help of different colors. By treating our experiments step by step, we have obtained the clusters which have been shown with the help of 5 different colors and representing their portion in Figure 4.

Conclusion

On the basis of all the experiments performed, it has been analyzed that are only 44% of the users who have been found to be connected based on the information or photos they have shared. Users were linked via comments on the photos they shared. Most of the photos were about to describe some advertisement or information about anything. Rest of the 66% users was found independent which were not connected with any of the user. So the communities where 44% of the users exists are treated as independent communities. These communities exist in the dataset and presented in the form of different graph after running commands for community detection using I graph library. Hence, we can conclude that Instagram is news media instead of social media. We can also treat Instagram, an advertisement media as well.

Future work

The results of these experiments have been performed on the dataset based on 2k records. That could be the reason of obtained results. It is an idea which can help other researchers to make their results better. They can collect largest dataset to improve the results.

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