



A SURVEY ON IMPACT OF SOCIAL MEDIA ON DIFFERENT DIMENSIONS

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Abstract: Social Media had acquired a large popularity and user-ship. The social media had impacted users directly or indirectly in many ways. It has both positive and negative effects on the users. The users are of varying age groups and from different social and cultural backgrounds. Due to its vast usage and popularity among the people, the scholars have a keen interest on analyzing the impacts caused by social media. This review tries to focus on different existing articles and works which employed various data mining and statistical techniques to find the impact caused by social media. It mainly focuses on the impact of social media on variables such as society, education, student’s community, cybercrime, and security.

Keywords: Social Media, data mining, statistical techniques, academic performance, privacy and security threats.



Fig 1: Usage of social media [1]

INTRODUCTION:

Social Media is Internet-based software and interfaces which are used by people to establish communication between one another, sharing information about their lives such as their biographical details, their interests, hobbies, picture and multimedia and also their thoughts and views. Social media was initially viewed as personal tools used by individuals to communicate with friends and family but was later used by businesses for economic purposes, advertisements. It gained popularity among youngsters.

Social media had become a part and parcel of people’s life. It had not only connected millions of people online but also paved a way to new problems. The social media had a major growth spurt of users on the advent of smartphones. It is easier to access these sites and also launched as attractive apps which are easy to download and available free of cost. The user count on social media platforms is increasing constantly. There are 2.7 billion users in social media as of 2017, with Facebook having the highest user count of 2061 million as of 2017.

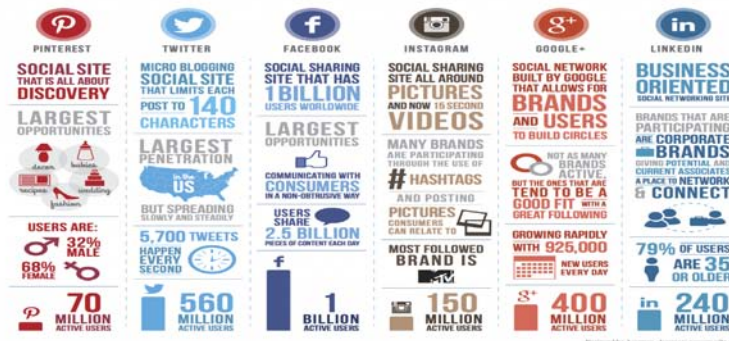


Fig-2: Popular social networking sites [2]

I. IMPACT OF SOCIAL MEDIA:

The social media’s popularity and widespread usage have kindled many scholars to conduct studies and write articles based upon the impact of social media on various aspects. This literature review reveals the major purpose of these studies and its findings in terms of impact or effect of social media and also enables us to understand the different dimensions of the way social media have affected people and society. The impacts can be sub-categorised as follows.

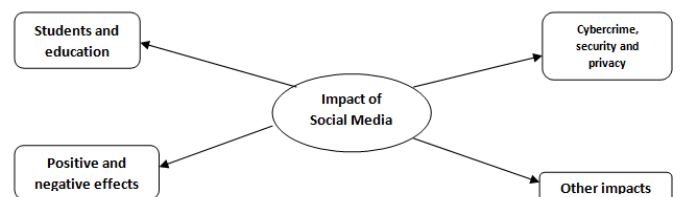


Fig-3: Impact of social media

A. Impact on Students and Education:

The student’s community constitutes the majority of the users in social media and hence they are more impacted by **Social media** in comparison with the other users .Fig-4 shows the college students’ usage of internet

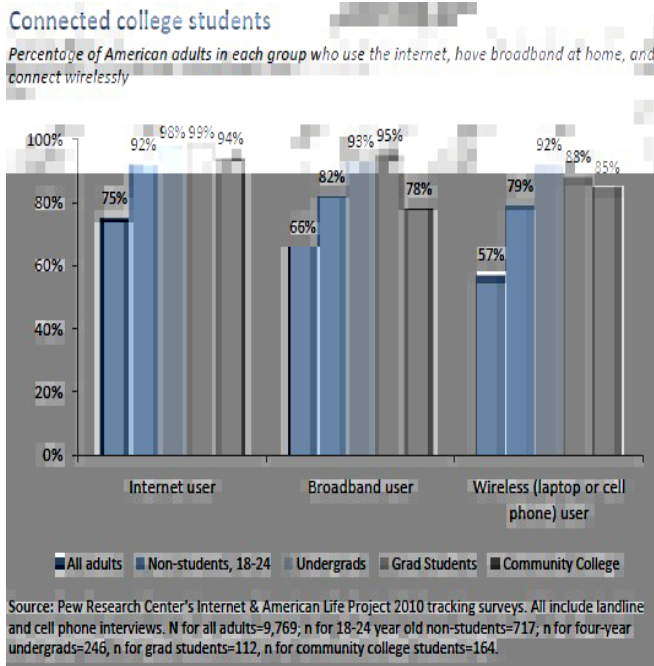


Fig-4: College student’s internet usage [3]

Jayshree Jha, et al [4] had conducted a study to find the effect caused by social media in academics among students. They had adopted the questionnaire survey method .The samples were drawn at random and analyzed using statistical **tools** such as pie chart and graphs. Based on the findings it is evident that it affects the grades of the students. It also proves that the social media acts as a platform to release their pressure. This study also suggests us to find an approach on how to balance the relationship between the usage of social media and academics.

The study conducted by **Waqas Tariq, et al** [5] dealt with the impact caused by social media on students and education, as well as the life of the teenagers. They also tried to describe the danger of social media usage among youngsters and teenagers. Based upon various surveys conducted between 1991-2011 and **statistical analysis** on graphical and other visual representations of data it is evident that there is no third party or community to keep track or check the user related activities in social media. Hence social media usage among teenagers without any guidance could be dangerous.

The study conducted by **Aida Abdulahi, et al** [6] dealt with the negative effects of social networking sites such as Facebook and its impact upon Asia Pacific University Scholars in Malaysia. They examined the link between usage of Social Media and health threats .They also comprehensively analyzed the law and privacy of social media and risks involved by them. **Survey methodology** is adopted and they had employed **Pearson moment correlation and regression** to examine the relationships among the variables. According to the results, it is evident that as time spent on **Social Media** increases, the academic performance of the students declined. Secondly, people also unaware of information sharing policies in social media and doesn’t know that their personal data can be shared among other parts of social media. As a result, they end up sharing their private information with

unauthorised people. The author suggested users to have the awareness of these security policies while using **Social media**.

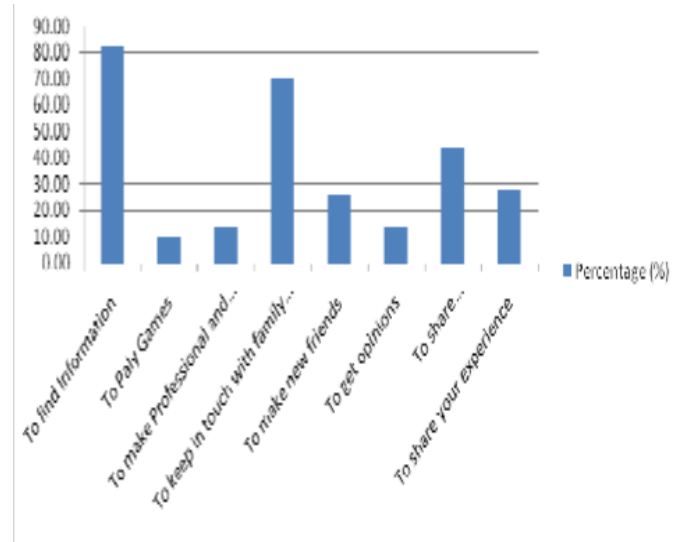


Fig-5: Purpose of using Social Media [7]

According to Tejas. **B shah**, [7] based on their study; there exists positive as well as negative effects caused by social media among students. The study employed the method of **questionnaire survey** which was used for data collection .The analysis on the collected data showed that facebook is the most used Social Media among the sample and about **38%** of the samples had used it for more than a year. About 74% of the students believe Social Media have a positive effect on academics. And 76% thinks that Social Media is helpful for their assignments related to their academics .The fig-5 show the purpose of Social Media usage among students. The research concludes that students should have the balance between usage of social media and their education.

B. Impact on social cybercrime, security and privacy:

Cybercrime is another issue prevails among Social Media and acts as a threat to the security of social media users .The privacy of the users is in danger if Social Media is used without caution. Fig-6 shows the cyber bullying in social media.

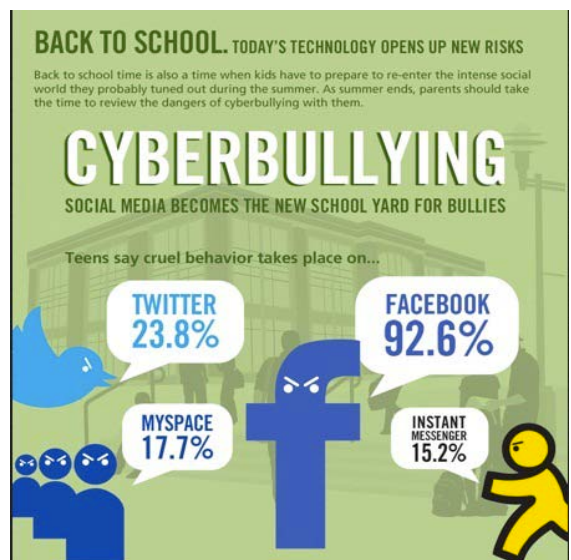


Fig-6: Cyberbullying [8]

Ganesan and P.Mayilvahanan [9] have conducted a study on cybercrime using a data mining technique .the cybercrime analysis was performed on social media data. **Clustering and k-means methods** are used for exploring the data set. The **k-means clustering algorithm** is used to obtain unstructured data. Since the dataset regarding **Social Media** is of unstructured format such as text, video, images etc. It proposes the clustering technique for analyzing the crime data from the database. And this technique is faster to obtain data from the vast social networking data available and types of crime can also be classified and using k-means to retrieve data.

Roshan jabee et al [10] had studied the view of Social Media users regarding security and privacy settings improvements, particularly on facebook. He adopted a **survey method based on questionnaire** and analyzed the data using **statistical** and visual representation of data such as graphs and diagrams .The results shows that 92% of users are students belong to age group (15-25) years and 24% of users have experienced a security breach .Table-1 showed the responses given by the users about the need for improvement in default privacy settings in facebook. He strongly recommends that the user should be more concerned in security settings in facebook.

Table-1: Default privacy setting of Facebook need improvement.[10]

Response	No. of users	% of users
Yes	145	85.29
No	17	10
Depends	8	4.70
Total	170	100

C. Positive and negative impact:

Usage of social media had its own impact on the users. It can be revealed to have both positive as well as negative effects based on how they used social media and in which way it had impacted the users

Dr. Indrajit Roy chowdhury, [11] had focused on negative and positive impacts caused by social media among youths. A **survey method** is adopted and **statistical** and visual representations of these data are used for analysis. The results showed that 80% of female Facebook users regularly access their accounts .Over 10% of female FB users in Kolkata had experienced harassment by someone in social media .About 60% of the users have used facebook more than 4 years. And 85% are already aware of the negative impact caused by Social Media.

Anurag Sarkar et al [12] explored the merits and demerits of social media. They adopted a **survey and statistical** methods to visually represents data in the form of graphs .The result concludes that social media will become a significant part of human life and it can be brought under control with proper planning and management. It also suggests that more detailed study should be required in focus on health issues. Their study states that cyberbullying, identity theft, negative impact on mental and physical health, poor language and grammar as the demerits. The positive impacts were distinguished as worldwide connectivity, a community of interest, real-time sharing of information, free advertising and business advantages.

The study conducted by A.T.M Shahjahan, et al [13] depicts the effects of social media on the people. The **questionnaire survey method** is adopted and the analysis indicated that it has both positive and negative effects such as meeting new people,sharing idea beyond landscapes to reach more people for business ,education purposes etc. The negative impact is spending more time in Social Media than necessary

D. Other impacts caused by social media:

The study conducted by Nicole B. Ellison, et al [14] adopted the **empirical method of survey** and found that about 94% of the sample uses facebook . Usage of facebook helped them to overcome barriers faced by students who have low satisfaction and low self-esteem. But overall **regression model** indicates facebook being less useful for maintaining or creating bonding social capital. Strong linkage between facebook usage and highschool connection suggests Social Media helped them to maintain their relationship as people move from offline community to another.

Annapoorna Shetty, et al [15] in their study adopted a questionnaire method to find the effects caused by social media. The survey was being conducted on a sample of 100 youngsters. The average age groups were between 18-30 years. The data was analyzed and it shows that the Positive use of social media was developing the academic career, better lifestyle, to adopt new trends, fashion, and anthropology .Table-2 shows the positive impact of social media among youngsters based upon 100 responses in which 66 people told yes and 34 people told no.

Table-2: Social media have positive impact on youth[15]

Response	F%	Valid%	Cumulative%
Yes	66	66	66
No	34	34	34
total	100	100	100

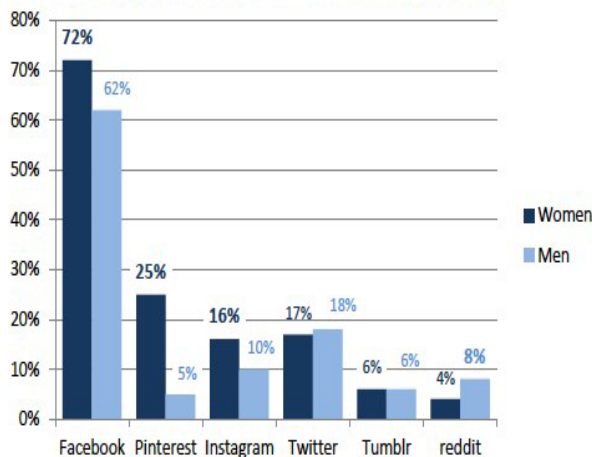
The study conducted by Samaneh Beheshti-Kashi and Baharak Makki presents [16] the use of social media in the context of news. The **online survey** was conducted among both users and non-users of facebook and the statistical analysis indicated that social media was only an additional path to traditional media than being its alternative .it also raised the question regarding the credibility of news published by a friend on social media. The non-Social Media users intentionally avoids the content generated by Social Media users and being sceptical of truthfulness of news from social media

II. CONCLUSION:

The above literature review shows the impact caused by social media on various aspects. Fig-7 depicts the statistics among the usage of social media by both men and women. It is ascertained that the recent women use social media such as facebook more than men. Thus social media has more impact on women than men. Many researchers have tried the impact of this study based on statistical measures. So the aim of the proposed study is mainly focused on data mining techniques for the analysis of the dataset. The proposed work gives emphasis upon finding the impact of social media among women in terms of physical, mental and emotional aspects using data mining techniques. The dataset can be obtained by employing a questionnaire survey method and can be analyzed using suitable data mining model. The results may show how much women are affected by using social media in a positive and negative way in terms of physical, mental and emotional aspects.

Men vs. women site-specific social media use

Among internet users, the % of men vs. women who use the following sites



Source: Pew Research Center's Internet and American Life Project Tracking Surveys, 2012-2013.
Note: percentages in bold, larger font indicate statistical significance between men and women.

Fig-7: Usage of social media [17]

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