

Qualitative Analysis of Co-occurring Themes of Online Social Networking

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Abstract

The users participate in Online Social networking by and large voluntarily for reaping its benefits although it is not free from various threats, issues and problems. A large number of online social communities engaged in sharing of information for their community particularly that we can find over the Internet. The qualitative analysis exposed a wide variety of Positives and Negatives associated with participation with online social networking. These positives and negatives are the co-occurring themes of participation in online social communities. A clustering approach is used for the qualitative analysis as described in this paper.

Keywords: online social networking, information, digital media, social media, apps.

1. Introduction

A wide variety of social media tools are available in the world. Social networking sites is one of the fast emerging tool being used now-a-days. People just register themselves with these social networking sites and start enjoying its benefits. Although huge number of applications and benefits are of online social networking (OSN) [1,4] but there are a large number of threats and attacks are made on online social media over the Internet [11] by the cyber attackers that leads to huge personal and business losses. The cyber threats and attacks [2] are one of the major topics of the discussion of this paper. OSN users access social media platforms and apps for their communication and share information and their experiences. There are lot of possibilities exist for sharing data and information voluntarily and also lot of scope of data leakage and exploitation due to prone of digital media [5] to adversity. The benefits and problems of OSN are divided into clusters here. Clusters are created on the basis of themes which are basically formed in the basis of benefits and problems. Although clusters are created but there is overlapping of clusters up to some extent as they are inter leaved. Benefits are termed as Positives and problems are termed as Negatives.

OSN users use this OSN platform for obtaining the information [3,18] as well as disbursing the information. So OSN users are not only the consumers but also the producers. They create information as well. In this world of contemporary use of digital media, the OSN users are not the passive users or consumers, they are active users and create the original content of their domain of knowledge and share by way of OSN. There are lots of opportunities to create digital data [6,19] about the relevant topic of the specialization the users have. There exists extreme diverse type of actors who provide information over OSN. If we talk about healthcare, the information regarding healthcare professionals, nutrition, therapists, medical products, doctors, nurses, diseases- their symptoms, causes and treatment is made available over online social networking. The information sharing has number of benefits in terms of economic, social, political etc. But the quality of information available over online social networking is widely variable. In addition to good information, sometimes we face vague information which required intention so that it may not have the adverse effects of the users of this information practically in their life. Wide confrontation sometimes prevail about making judgements that whether the information available over OSN is good information and can be trusted. Further it leads to assumptions about the creditability and

validity of information [15,17]. Important and high valued information sharing leads to establishing and maintaining cherished and long lasting relationships as such information provides support and provisions of its type. Such information sharing strengthens the friendly connections.

The number of online social media is ever-increasing throughout the world although domain of activities performed by users differ. A statistics of social media [7,8] show that the number of social media users is around 3.2 billion worldwide, and this number is only and only increasing. It is roughly equals to about 42% of the current population (Emarsys, 2019). Domain of online social networking may be any like education, health, fashion, sports, entertainment, music, spirituality, politics, women, jobs, parental, business, film industry, insurance, social sensitization and the like. The list is too vast. Although each aspect of said domains of online social networking is itself a complete domain and has its own positives and negatives but this paper highlights the common ones.

Internet and digital technologies transforming the lives of this contemporary world. Digital technology [9,10] encompasses digital tools, new approaches and methodologies. Different tools has common and diverse features and accordingly these tools have their user's domain. The number of users of each digital tools vary accordingly to the features these tools provide. Not only particular features of digital tools determine the user base but also which age group, geography they are used for. It is challenging to understand the role and practices of different types of digital media and tools because of its wide variety of platforms and fast changes in technology in addition to the change in prevailing attitude of the users.

2. Related Review

A wide range of online communities and social networking sites are available and are being used by online users. There is exponential growth in the number of OSN users. As discussed in introduction section that the domain of online social networking is very vast. A tremendous number of users are members of these OSN and are getting potential benefits of the usage although they are facing with various problems, threats, attacks and issues. In this section a few of the categories of OSN users are discussed.

Deborah Lupton [], in his paper "The use and value of digital media for information about pregnancy and early motherhood: a focus group study" discussed use, values of social networking sites and problems being faced by the said domain users. They highlighted the uses of social websites, blogs, mobile apps, online discussion forums and other social media. The author talked about how the pregnant and early motherhood women get benefitted by using OSN. The sample collected by the authors from Sydney, Australia y way of grouping them in four categories. The sample size contains 36 women who are either pregnant or in early motherhood stage. They concluded that although online social networking has various advantages but the said domain group of women get benefitted by using information generated through OSN.

Katy Jordan, Martin Weller [1], presented the paper "Academics and Social Networking Sites: Benefits, Problems and Tensions in Professional Engagement with Online Networking" that discusses the benefits and problems of usage of online networking. They explored that the use of social media and OSN solely benefit the academics although it leads to adversities of academic work online. They elaborated by using the terminology digital scholarship and they mentioned that how digital scholarship bring the transformations in academic by using digital tools, new methodologies and approaches. They also mentioned the perceived problems of social networking sites in academic but overall they are of the opinion that benefits surpasses the problems. They divided these benefits into four clusters out of which

two clusters are related to benefits and other two refers to problems and issues of social networking sites in academic.

Bernie Hogan, Barry Wellmanin [3], proposed in his book chapter “The Relational Self-Portrait-Selfies Meet Social Networks”, in the book “Society and the Internet: How Networks of Information and Communication are Changing Our Lives”. They authored that social media has changed the definition of Internet. Internet is not used as consumers by most of the users are also producers and are generating & sharing information using social media. They also focused the negatives of social media by raising questions that ‘Can Facebook friends are friends in real sense?, Can we trust online information and profiles of the users?, privacy and security concerns.

Greg Taylor [2], presented in his book chapter “Scarcity of Attention for a Medium of Abundance- An Economic Perspective” in the book “Society and the Internet: How Networks of Information and Communication are Changing Our Lives”. They focused on the attention on main role of online markets as well as the author has also discussed about the economic implications and effects of online markets over business and the customers. Author focused on the shaping of pricing and customer base in the light of online entrepreneurship as well as the role of search engine and digital marketing in the modern digital age. Author is of the view that the digital age and online marketing be treated as attention economy.

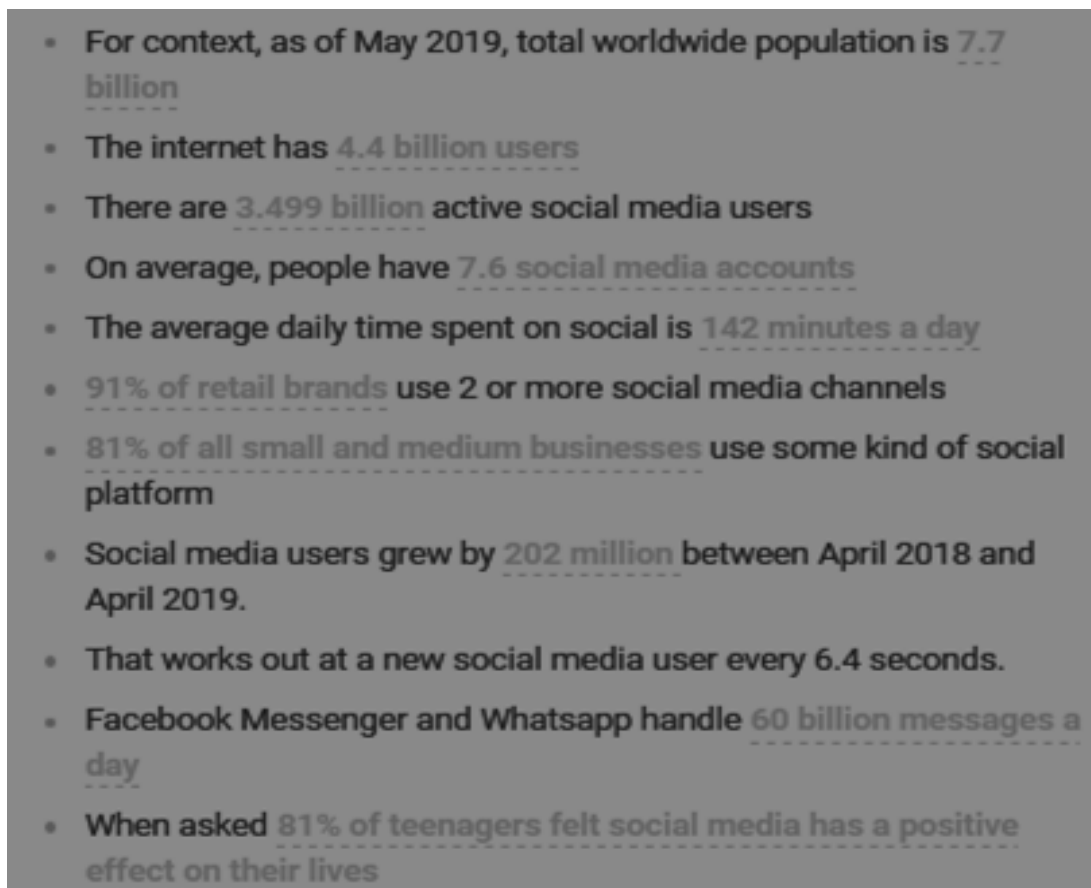


Figure-1: Social media Statistics [5,6]

Source: <https://www.brandwatch.com/blog/amazing-social-media-statistics-and-facts/>

The statistics in figure-1 shows the worldwide population, total Internet users, active social media users and other information related to the usage of social media. Figure-2 shows the number of online social network and media users as well as the usage shares of prominent social networking sites.

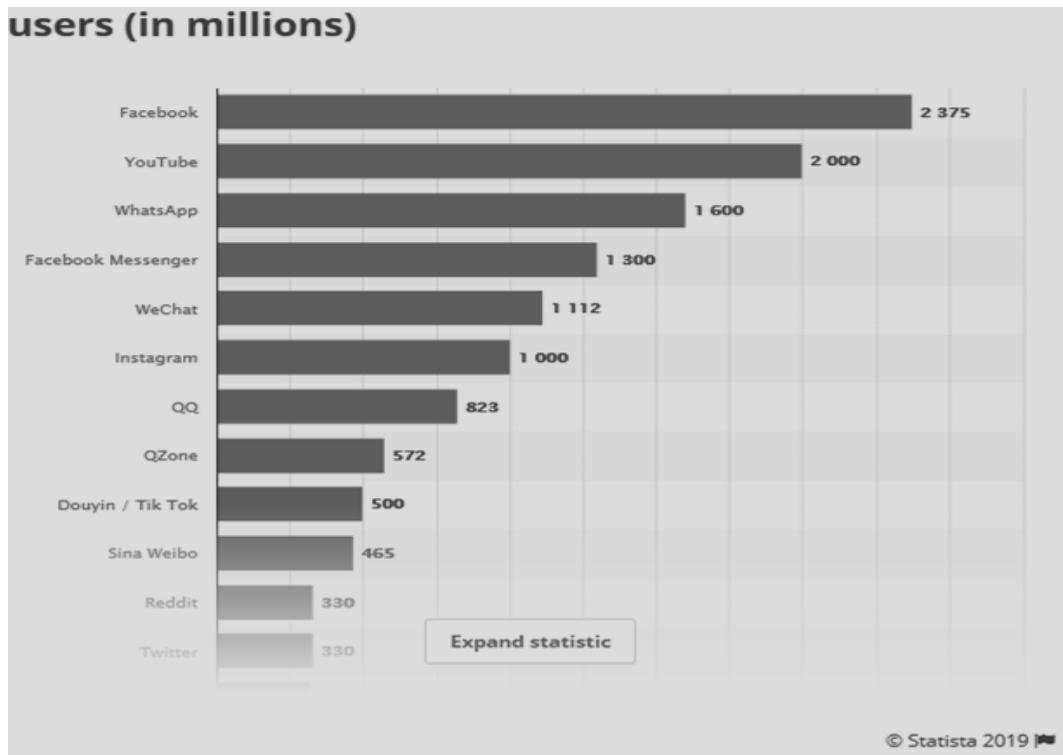


Figure-2: Most popular social networks worldwide as of July 2019, ranked by number of active users (in millions) [5,6] Source: <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

GOOGLE PLAY: 2018 DOWNLOADS		GOOGLE PLAY: 2018 SPEND		iOS: 2018 DOWNLOADS		iOS: 2018 SPEND	
#	APP CATEGORY	#	APP CATEGORY	#	APP CATEGORY	#	APP CATEGORY
01	GAMES	01	GAMES	01	GAMES	01	GAMES
02	TOOLS	02	SOCIAL	02	PHOTO & VIDEO	02	ENTERTAINMENT
03	ENTERTAINMENT	03	ENTERTAINMENT	03	ENTERTAINMENT	03	SOCIAL NETWORKING
04	COMMUNICATION	04	LIFESTYLE	04	UTILITIES	04	MUSIC
05	PHOTOGRAPHY	05	MUSIC & AUDIO	05	SOCIAL NETWORKING	05	PHOTO & VIDEO
06	SOCIAL	06	PRODUCTIVITY	06	SHOPPING	06	LIFESTYLE
07	MUSIC & AUDIO	07	COMMUNICATION	07	LIFESTYLE	07	HEALTH & FITNESS
08	VIDEO PLAYERS & EDITORS	08	HEALTH & FITNESS	08	FINANCE	08	PRODUCTIVITY
09	PRODUCTIVITY	09	DATING	09	PRODUCTIVITY	09	BOOKS
10	SHOPPING	10	EDUCATION	10	EDUCATION	10	EDUCATION

183 SOURCE: APP ANNI, 'THE STATE OF MOBILE IN 2019' REPORT (JANUARY 2019).

Hootsuite we are social

Figure-3: Mobile Apps- Global Category Rankings [5,7]

Source: <https://p.widencdn.net/kqy7ii/Digital2019-Report-en>

The above figure-3 shows Global Category Rankings of mobile apps in use in 2018. The rankings is defined on the basis of mobile app categories. It is further defined on the basis of statistics of Total global downloads as well as Annual global consumer spent their time.

3. Clustering in Information Analytics

Information has its features and properties. Basically the properties of information are properties of good information whether the information is digital information or non-digital. Here digital information [8,12] refers to information available at SNSs. The digital information in general must have the properties like immediate, accurate, timely, consistent, reliable, relevant, detailed, regular, current, unbiased, complete, practical, customized and professional. The shared digital information must require its analysis so that it fulfils its properties by and large. Proper verifications and validations are required so that it leads to positive rather than negatives. Some of the benefits and problems benefits and issues cum problems (Lupton, 2014) treated as positives and negatives are highlighted in table-1.

Table-1: Positives and Negatives of Online Social Networking

Positives	Negatives
Sharing	Privacy
Openness	Lack of credibility
Self-promotion	Lack of trust
Research	Content quality of posted material
Support	Time pressures
Current technology use	Plagiarism
Popularity	Extreme self-promotion
Wide market	Career at risk
Without boundary	Compulsion
Stay up-to-date	Scope of being targeting
Helping others	Digital literacy concerns
Identify same interest group of persons	Security concern
Active consumers of information	Social aversion
Active producers of information	Unreliable information
Find collaborators	Spams
Discussions	Time concerns
Instant Feedback	Digital inclusion concerns
Track impact	Fake profiles
Find opportunities	Hacking
Multiple domain profiles	Cracking
Learning	Information forbidden
Emotional support	Bullying
Community building	Body image and posture
Self-expression	anxiety
Awareness worldwide	Sleep quality

Analysis of concurrent themes of online social networking [9,10] is made on the basis of benefits and problems of usage of OSN. The analysis parameters may be based on behavior economics, sentiments analysis [20,21], opinion mining [9,12], sociological and psychological factors. Various techniques like regression, natural language processing, correlation, machine learning, association and clustering etc. can be used for analysis purpose. The paper focuses on qualitative aspects of co-occurrence themes of social networking sites [11, 13], so clustering is suggested for qualitative analysis. Set of data is partitioned into groups based on the similarity mechanics in cluster analysis and then relevant labels are assigned to each group.

Here clustering is proposed on the basis of Positives and Negatives of Online Social Networking [15,16] as shown in Table-1. Number of cluster can be assigned on the basis of some criteria. Here four clusters are suggested. Cluster-1 is related with dominance of Negative Perception of usage of online social networking (Negativity-1). Cluster-2 is based on another aspect based on Aversion of using the Online social networking [14] (Negativity-II). Similarly Cluster-3 is related with the benefits or positives of widely usage of online social networking (Positivity-1) that are strategic users and exploit the maximum benefits. The Cluster-4 refers to the benefits or positives with the addition of some problem and hesitation that are more or less forbidden for the usage (Positivity-II). Altogether the qualitative analysis is based on the positives and negatives of the usage of online social networking.

4. Conclusion

Online social networking is widely used in contemporary world irrespective of gender or geographical factors. The objective of usage of OSN varies on the basis of gender or geographical etc. factors. The usage of OSN leads to positives and negative that are qualitative in nature. Various qualitative factors of co-occurrence themes are collected by using various primary and secondary sources of data collection. Further they are clustered in four categories by considering their qualitative usage factors. The benefits of the online social networking can be reaped if proper awareness and better usage mechanism is spread to the users of different clusters so that cluster-1, cluster-2 is minimized along with cluster-4 of the online social networking users.

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