

# IMPACT AND CHALLENGES OF SOCIAL COMPUTING

Deepthi Sehrawat

Computer Science and Engineering , Amity University Gurugram, Haryana

## Abstract

Social Computing is in great trend now a days as most of the people are connected through various forms of social media. Social media has become part and parcel of maximum population. Social Computing is essential to understand the social behavior and computational aspects. This paper talks about the need to study and understand the impact of social media which as a result is generating huge amounts of data. The need is to analyse the data generated every single minute through social media and web. And the need is to design such tools which can optimize the data to get faster and efficient results.

## Keywords

Social Computing , optimize , computing , internet , social media.

## 1.Introduction

The Social Web has become an important means of communication for everyone: people, organizations, and governments all use it to spread and share information, offer opinions and engage in discussions. This medium creates large social networks through which vast amount of information flows quickly and easily. Many events are now first reported on the social web (e.g., Twitter, FaceBook, Instagram, whatsapp etc.). specially in emergencies such as explosion , accidents , fires , natural calamities riots, and later in news. Social media has also overcome the impact of news channels because handling a phone is portable and convenient.[6]

New web technologies and especially social networks enable users to share and discuss common interests and provide infrastructures for integrating various user experiences: synchronous and asynchronous communication, game-playing, sharing links and files. Social network and social interaction using mobile and cloud platforms capture vast amounts of data that can be mined to discover implicit knowledge, common beliefs, preferences, and experiences, that could potentially empower users to learn from each other and together. Social computing can be broadly defined as the computational facilitation of social studies and human social dynamics as well as the design and use of computing technologies that consider social context. Social computing empowers individual users with relatively low technological sophistication to use the web to engage in social interactions, contribute their expertise and share their content, experiences and opinions

## 2.Impact of Social Computing

Social Media has impacted almost every section of the society including professionals, scientists , students and even a housewife.The spreading of information through social media has become very easy and affordable.[8] Social computing techniques enable and support communication and collaboration between service providers and consumers. One of the interesting features of social networks is their growth characteristics: sudden and unpredictable. Social networks grow in members and contents following the principle of human dynamics—bursts followed by a long tail.Mobile devices, smartphones in particular, have penetrated our social life, compounding this social communication revolution and its need for scalability of processing power.

One of the problems with smart phones is the limitation of their battery power. The increasing complexity of new mobile applications puts a heavy load on batteries. To overcome this problem, some techniques off-load mobile computations to software clones of real devices in the cloud. This process involves communication among many entities like mobile devices, their clones, the cloud providers, and mobile network operators. Establishing trust in the communication chain, more specifically with the cloud provider and the mobile network operators, is challenging. A lot of private information could be eavesdropped on and revealed.

On the other hand , social media has also negative impact when not used carefully. The youth is wasting most of the time in just scrolling the webpages , gaining less and wasting more time in learning nothing.

### 3.Challenges

As a highly inter disciplinary field, research on social computing requires vast collaboration from researchers from a variety of disciplines, including computer science, social science, anthropology, and applied physics. For a newcomer, it is hard to obtain an overall view of this field.[9]

The growth and popularity of social networks tend to shortage of computational resources and storage infrastructure for the huge data traffic generated everyday. The other threats are scalability, maintenance and management. Managing and processing a network with millions of edges (e.g., LinkedIn), distributing status updates to millions of users (e.g., Twitter, Facebook, Watsapp, etc.), and distributing user generated content to millions of users spread across the globe are some of the practical challenges posed by social networks, or the social web in general, where cloud computing can contribute solutions.[1] An important research area is thus to develop distributed cloud architectures that can handle sustained traffic generated by millions of users in social networks. Whether it is for a social or political event, a marketing campaign or an emergency scenario, it is important to know how to disseminate information on the social web so that it has the desired impact. This requires identifying the influential nodes in the network and providing the right incentives for them to propagate the desired message.

### 4.Conclusion

Social cloud is gaining increasing attention from the research community, as it provides a solid framework for building trusted community clouds using the explicitly exhibited trust in social networks. People increasingly employ mobile devices over which data is continuously transferred, typically to and from the cloud. This process is prone to security and privacy problems, as one can eavesdrop on the communication, and private or sensitive information can be revealed.

The role of social media can not be completely erased from our routine life so the need is to emphasize its relevance in the areas of education, business, marketing and promotions. Efforts should be carried out minimize its negative impact on youngsters and working population because the excessive addiction of Social media has made the population more lethargic and idle.

The evaluation of the social machines will require the collaboration of web, artificial intelligence and data analytics.

### References

- [1] Surya Nepal, Athman Bouguettaya, "Special Issue on Clouds for Social Computing", IEEE TRANSACTIONS ON SERVICES COMPUTING, VOL. 7, NO. 3, JULY-SEPTEMBER 2014, pp. 329-332.
- [2] Fei-Yue Wang, Dongsong Zhang, and Katia Sycara, "Special Section on Social and Economic Computing", IEEE

TRANSACTIONS ON SERVICES COMPUTING, VOL. 6, NO. 2, APRIL-JUNE 2013, pp. 150-151.

[3] George Cybenko, "Parallel Computing for Machine Learning in Social Network Analysis", IEEE, 2017 International Parallel and Distributed Processing Symposium Workshops, pp. 1464-1465.

[4] Timothy K. Shih, "Special Section on Social Computing and Social Knowledge for e-Learning", IEEE TRANSACTIONS ON LEARNING TECHNOLOGIES, VOL. 7, NO. 3, JULY-SEPTEMBER 2014, pp. 205-206.

[5] Pasi Saari and Tuomas Eerola, "Semantic Computing of Moods Based on Tags in Social Media of Music", IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 26, NO. 10, OCTOBER 2014, pp. 2548-2560.

[6] Jim Hendler, "A research challenge for AI on the world wide web", Artificial Intelligence 174 (2010), pp. 156-161.

[7] Weihui Dai, "Emotion recognition and affective computing on vocal social media", Information & Management 52 (2015), pp. 777-778.

[8] Eric W.T. Nagai, "Social media research: Theories, constructs, and conceptual frameworks", International Journal of Information & Management 35 (2015), pp. 33-34.

[9] Tao WANG, "On social computing research collaboration patterns", Front. Comput. Sci., 2012, 6(1): 122-130.

[10] THOMAS ERICKSON and WENDY A. KELLOGG, "An Approach to Designing Systems that Support Social Processes", ACM Transactions on Computer-Human Interaction, Vol. 7, No. 1, March 2000, pp. 59-83.