



SOCIAL NETWORKS HAVE UNDERGONE A DRAMATIC GROWTH IN RECENT YEARS

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Abstract — Social networking has been the biggest cultural shift since the industrial revolution, attracting millions of people. Social media includes digital-based applications, such as music, image, audio and video sharing; review and opinion sharing; gaming and entertainment; information and news aggregation; presentation sharing; advocacy and fundraising; creation of virtual worlds and all-purpose wide-appeal networks geared toward general audiences.

This article surveys the past and current state of online Social Networks. It covers the variety of different online social networks. Social media consists of web sites, portals, and applications that allow individuals to post and share content publicly, allowing other individuals to view and respond to that content.

This paper aims to draw the state-of-the-art and identify the research challenges that emerge from the Social Networking reality.

Keywords – Facebook, Twitter, Orkut LinkedIn

I. INTRODUCTION

Internet is an indispensable part of our life from shopping to electronic mails and education, internet is very important. Internet is used for pure education, but unfortunately, we have large number of people including majority of youth and teenager using it only for social networks. Now-a-days social networking sites are becoming popular and playing a vital role in every citizen's life. These web sites are the applications that are used by the user to interact and communicate with each other very easily in many ways.

Social Networking Sites are becoming immensely popular. According to the researches held in the past, social media have pulled ahead of email as the most popular activity. More than two-thirds of global on-line population visits and participates in social networks and blogs.

Through social networking sites, users connect with each other, share and find content, and disseminate information.

Social networking sites are useful to people for finding likeminded people. Connecting many people by providing different services can be possible only by using social networking sites. Online social networking sites have become mediator to communicate with others in many ways.

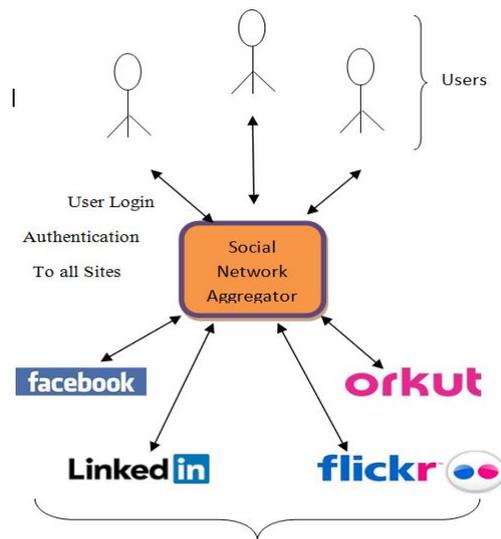


Fig.1.1 Different Social Networking sites with their Authentication Process

User can share his /her ideas, emotions, pictures, posts, activities, and events with people in their network. Online social networks are common means to connect with friends, and relatives.

In late 1990s, social network was born with Web 2.0 introducing features of blogging and posting with the website named sixdegrees.com (1997) which allowed user to create profiles and make friends, later it came up with new features in the year 2003 — a new face of social networks: linkedin.com and myspace.com. In the same year, facebook.com and orkut.com changed the complete concept of social networks in the history of social media and web sciences; in fact, it changed the definition of social networks. Later on social networks became very much advance with many new features, such as the user could now change the whole front end appearance of the website on his profile[4]

Popular online social networking sites, such as Facebook, Twitter, Orkut, linkedIn and Flickr rely on explicit user graph to organize, locate, and share content as well as contacts.

The following diagram shows the evolution of social networks from 1999 to 2015.

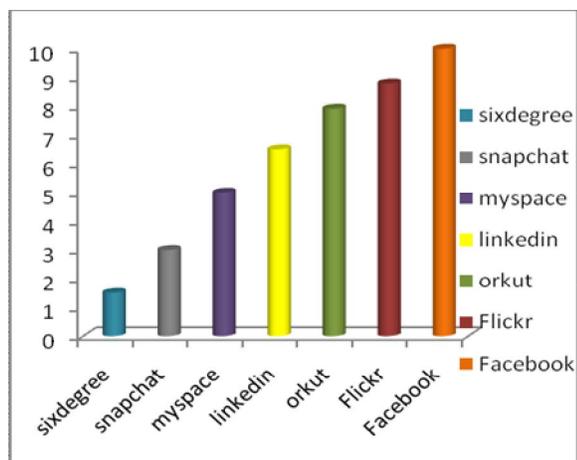


Fig.1.2 Graph of usage of social networks

II. RELATED WORK

Ralph Gross, Alessandro Acquisti [1] in their research paper “Information Revelation and Privacy in Online Social Networks” discussed the study patterns of information revelation in social networking sites and the privacy implications. They also discussed the behavior of more than 4,000 Carnegie Mellon University students and analyzed the social networking site usage by colleges. The amount of information would be evaluated by them and they disclosed and studied their usage of the site’s privacy settings. In this research paper, various potential attacks & privacy aspects were highlighted. In addition, they had also shown that a minimal percentage of users changes the highly permeable privacy preferences.

Fabrcio Benevenuto, Tiago Rodrigues ,Meeyoung Cha, VirgilioAlmeida[2] in their paper “Characterizing User Behavior in Online Social Networks” discussed characterization of social network workloads, based on detailed click stream data summarizing HTTP sessions. The concept in this is that a single authentication enables users to connect to multiple social networks. They analyzed the statistical and distributional properties of most of the important variables of OSN sessions. They also presented the click stream model to characterize user behavior in online social networks.

Tata A S K Ishwarya[3] in their research paper “Online Social Networking Sites that are used for Specific purpose” had discussed social networking sites with different idea. In this paper, they discussed different social networking sites that are used for specific purpose in different parts of world, such as MyHeritage , Classmates.com, StudiVZ, Flixster, Meetup. In their paper, they had searched on different social networking sites where only family and relatives can catch up and other networking sites which are useful to students

Abdullah Al Hasib[4] in his paper “Threats of Online Social Networks” highlighted the commercial and social benefits of safe and well-informed use of SNSs and emphasizes the most important threats to users of SNSs as well as illustrates the fundamental factors behind these threats. This paper also presents the policy and technical recommendations to improve privacy and security without compromising the benefits of information sharing through SNSs. In this paper, they briefly described some major features and benefits of social networking sites. They also highlighted the crucial privacy and security threats that may arise due to ‘almost-anything-goes’ ethos of social networking sites. Finally, they state few recommendations to enhance the security issues of SNSs’ to ensure that the users will get benefits from the social network sites rather than sufferings of its downsides.

Waqas Tariq, Madiha Mehboob, M. Asfandyar Khan and FaseeUllah[5] “The Impact of Social Media and Social Networks on Education and Students of Pakistan”, they presented that effect or impact of social media and social networks on education and students. In this paper, they are likely to tell that social networking sites have very bad impact on the future of all students. Students are wasting their time by showing more interest on the social media, further it describes how social networking websites are auditory and dangerous for youth and teenagers.

Alan Mislove, Massimiliano Marcon, Krishna P. Gummadi [6] etc., presented a paper “Measurement and Analysis of Online Social Networks”. This paper presents a large-scale measurement study and analysis of the structure of multiple online social networks. In this, they discussed online social networks and why we need online social networking sites, the main focus of this paper is to investigate the structure of online social networks and they also discussed crawling of social networks in this world. They discussed different social networking sites and presented the analysis of structural properties of online social networks using data sets collected from four popular sites. They have focused on the exclusive user graph of social networking sites.

Qingya Wang, Wei Chen, Yu Liang,[8] has discussed in the paper “The Effects of social media on college students” effects of social media on college students. Their premises are that technology will play a vital role in today’s students’ equation. The results indicate that while most college students use social media and spend many hours checking social media sites, there was a negative aspect to college students’ use of social media. In this paper, they state that the college students are spending many hours by checking social media sites.

III. CRAWLING OF SOCIAL NETWORKING SITES

In the recent years, we have witnessed a dramatic rise in popularity of online social networking services, with several Social Network Sites (SNSs) such as Facebook, Twitter, LinkedIn, Instagram, Snapchat, Flickr etc., are now among the most visited websites globally.

History of Twitter:

Jack Dorsey, Evan willians, Biz stone and Moah glass developed twitter in March 2006. By July 2006, the website was launched. As soon as the services of twitter caught attention of the world, 500million users registered in 2012.

	Facebook	Linkedin	Twitter	Google+	Snapchat	Instagram	Flickr
App Name	facebook	LinkedIn	Twitter	Google+	Snapchat	Instagram	Flickr
Inventors	Mark Zuckerberg, Eduardo Saverin, Andrew McCollum, Dustin Moskovitz, Chris Hughes	Reid Hoffman, Allen Blue, Konstantin Guericke, Eric Ly, Jean-Luc Vaillant	Jack Dorsey, Noah Glass, Biz Stone, Evan Williams	Larry Page and Sergey Brin	Bobby Murphy, E van Spiegel	Kevin Systrom and Mike Krieger	Ludicorp
released date	February 4, 2004;	May 5, 2003; 12 years ago, Mountain View, California	March 21, 2006	June 28, 2011	September 2011;	October 6, 2010	february 10, 2004
Written in	C++, PHP (as HHVM) ^[4] and D language	Java	java, ruby, scala, java script	java and java script	Python, Java	Python	PHP
Monthly active user	1.49 billion monthly active users as of June 30, 2015	430 million	316 million	540 million monthly	341 million	300million	7 Billion

Table.3.1 Comparison of different social Networking sites

History of Facebook:

The Facebook was launched in Feb 4th, 2004. Mark Zuckerberg had developed the Facebook with his roommates and fellow Harvard university students Eduardo Saverin, Andrew Mc Collum, Dustin maskovitz and Chris Hughes. First, it was maintained among their friends and then later on it was made open to world and became very popular. Originally, it was called as the facebook and then it became popular with the name of Facebook.

- TheFacebook has become FACEBOOK.com in August 2005.
- From September 2005, US high school started signup.
- This online social network was extended all over the world by September 2006.
- More features have been developed since 2007.

History of LinkedIn:

LinkedIn is a business oriented online social network service. It was founded and launched in December 2002, on May 5th. It is very much useful for running a professional network and maintaining relations with professionals.

- It was launched in 2002.
- Increased to 20 million in 2006.
- As of March 2015, it is a well known site for everyone in the world.

History of Snapchat:

Snap chat was launched in September in 2011. It was founded by Bobby Murphy, Evan Spiegel and Reggie Brown. It started at Stanford University.

- It is a video messaging application.
- According to May 2014, Snap chat users were sending 700 million photos and videos per day.

History of Instagram:

Instagram was developed by Kevin Systrom and Mike Krieger. It was launched in the year 2010, October.

The distinctive feature of this app is that, it will confine the photos into square shape automatically.

- Picture filtering and customization can be performed to capture the image perfectly.
- We can add links to photos and videos
- Facebook announced acquisition of Instagram on April 9, 2012

History of Flickr:

Flickr is an image and video hosting website. It was developed by Ludicorp in February 2004. This service is very useful for photo researchers and for bloggers to host images.

- It is acquired by Yahoo in 2005.
- Photos and videos can be accessed from Flickr without need of registration.
- Flickr stores and displays your images at full resolution.

IV. IMPACT AND EFFECTIVE OF SOCIAL NETWORKING SITES

Social networking sites are usually run by Individual Corporation. To participate fully in social networking sites, users must register with a site. The users can communicate through Links in social networking sites. Some social networking sites, such as Flickr, LiveJournal allow user to link to any other user without consent, whereas other sites, such as Orkut, LinkedIn need consent from both creator and target before a link is created connecting these users. Users create the links for making real world acquaintances, online acquaintances, or business contacts and etc.

A user's links, along with her profile, are visible to those who visit the user's account. It allows users to view any other user account in the system. Most of the social networking sites enable users to create and join special interest groups. Users can post messages to groups and upload shared content to the group. Certain groups are moderated; admission to such a group and postings to a group are controlled by a user designated as the group's moderator. Other groups are unrestricted, allowing any member to join and post messages or content.

Impact of Social Networking Sites on present era:

The impact of social websites can be good on students. If we have a closer look on the real impact of social networks, we will notice that it is ruining the future and career of students. The social networking websites, such as <https://www.linkedin.com>, <http://www.facebook.com/>, <https://twitter.com/> and <https://www.orkut.com/> etc. are some of the most popular online social networking sites used by users in many ways.

By now, we are all aware that social media have had a tremendous impact on our culture, in business, on the world-at-large. Social media websites are some of the most popular haunts on the Internet. They have revolutionized the way people communicate and socialize on the web. Here is a closer look at the effect of social media on politics, business, socialization and some of the negative effects, such as cyber bullying and privacy.

Impact on Politics

Every politician worth his salt needs to jump on the social media bandwagon. This is because social websites have played an important role in many elections around the world, including in the U.S., Iran, and India. They have also served to rally people for a cause, and have inspired mass movements and political unrests in many countries.

Impact on Business

Net savvy companies are using social media to advertise their products, build customer loyalty and many

other functions. Interactions and feedback from customers help businesses to understand the market, and fine-tune their products and strategies. Many firms organize contests and give away prizes to enthruse consumers to visit their social website page more often. Compared to television advertisements and other expensive forms of marketing, social media presence is a cheap and effective means to enhance brand image and popularity.

Effect on Socialization

Social networks offer the opportunity for people to re-connect with their old friends and acquaintances, make new friends, trade ideas, share content and pictures, and many other activities. Users can stay abreast of the latest global and local developments, and participate in campaigns and activities of their choice. Professionals use social media sites like LinkedIn to enhance their career and business prospects. Students can collaborate with their peers to improve their academic proficiency and communication skills. You can learn about different cultures and societies by connecting with people in other countries.

Negative Effects of Social Media

Unfortunately, there are a few downsides too to social networking. Many introverts and socially reclusive users place too much emphasis on virtual interaction, and ignore the real world outside. Read on to learn about a few more negative repercussions of social media.

Cyber Bullying and Online Harassment

If you are not careful, unscrupulous people can target you for cyber bullying and harassment on social sites. School children, young girls, and women can fall prey to online attacks which can create tension and distress. If you are a victim of cyber bullying, do not take it lying down, but try to take appropriate legal action against the attacker.

Impact on Productivity

Many companies have blocked social networks on their office Internet as addicted employees can distract themselves on such sites, instead of focusing on work. In fact, studies show that British companies have lost billions of dollars per year in productivity because of social media addiction among employees.

Impact on Privacy

If you are not careful, what you post on the Net can come back to haunt you. Revealing personal information on social sites can make users vulnerable to crimes such as identity theft, stalking, etc. Many companies perform a background check on the Internet before hiring an employee. If a prospective employee has posted something embarrassing on social media, it can drastically affect their chances of getting the job. The same holds

true for our relationships too, as our loved ones and friends may get to know if we post something undesirable on social networks.

Impact on Education:

Students are very much attracted towards the social networking sites as it is useful for education as well as entertainment. Education is very essential part of an individual's life, for every teenager education is more important than anything. Social media is an ingrained part of today's society.

Our students are constantly on Instagram, Facebook, Twitter, and likely many sites we're not hip enough to know about, and by reading this blog, you're interacting with social media at this very moment. Social media can be a useful tool rather than a distraction. Education-based sites, such as Edmodo, Edublog, and Kidblog provide alternative social media sites for posting status updates and announcements, blogging, and microblogging. But even the commercialized sites can be useful for demonstrating social media to students.

Today teenagers show very much interest for using social networks but unfortunately Social Networks affect education badly. Social Networks grab the absolute attention and concentration of the students and diverts them towards non educational, unethical and inappropriate actions, such as useless chatting, time killing by random searching and not doing their jobs.

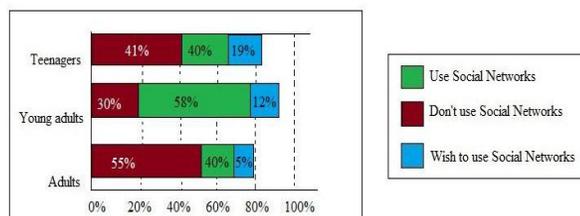


Fig.1.3 Ratio of Teenage, Young adults and adults users

V. CONCLUSION:

This paper presents an analysis on the social networking sites by discussing different social networking sites. In this our measurements indicate that social networking sites have a high degree of reciprocity, a tight core that consists of high degree nodes, and a strong positive correlation in link degrees for connected users. Social networking sites could ruin the future of teenagers and children. Social networking sites offer exciting new opportunities for interaction and communication. In this paper, we discussed some major features and benefits of social networking sites that have a dominating role in the present world.

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