Quipmate: A Social Networking Site

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Abstract— **Today social networking sites (SNSs) have gained the tremendous popularity among the youth causing a lot of attention of researcher both for academic and industrial purpose. Based on a detailed study of the various existing SNSs such as Facebook [9], Twitter [11] and many others, in this paper, we propose and introduce a novel SNS which we named Quipmate [10]. The main theme of this proposed SNS is to put the offline structure online and to create and maintain the online identity of a person by creating their diaries and Friends and do the best to describe the feeling of person on the Internet. The main features of the proposed SNS are Dairy, Status Song, Song Dedication Mood Sharing and others. These are also the distinguishing features of this SNS with existing SNSs. This site is live since 17th October, 2011 and currently has more than 2700 members. This study can be used by researchers as a reference in order to educate themselves about SNSs and their distinguishing features.**

Keywords— **Social Networking Sites (SNSs), Community, Friends, Member, Privacy, Quipmate, Relationship**

I. INTRODUCTION

Social network sites are web-based services that allow individuals to construct a public or semi-public profile within a bounded system. It articulate a list of other members with whom they share a connection and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site [1]. In other words SNS can be defined as the network of the friends. Or we can say that an online tool that is used to connect the friend. On many of the large SNSs, participants are not necessarily "networking" or looking to meet new people; instead, they are primarily communicating with people who are already a part of their extended social network [1]. While SNSs have implemented a wide variety of technical features, their backbone consists of visible profiles that display an articulated list of Friends who are also members of the system. Members use SNSs not mainly in order to make new contacts but to manage maintain and re-contact with extended physical networks [14]. Profiles are unique pages where one can "type oneself into being". After joining an SNS, an individual is asked to fill out forms containing a series of questions. The profile is generated using the answers to these questions, which typically include descriptors such as age, location, interests, and an "about me" section. Most sites also encourage members to upload a profile photo. The visibility of a profile varies by site and according to member discretion i.e. whether a profile can crawled by search engines or not. Structural variations around visibility and access are one of the primary ways that SNSs differentiate themselves from each other.

After joining a social network site, members are prompted to identify others in the system with which they have a relationship. The label for these relationships differs depending on the site popular terms include "Friends", "Contacts," and "Fans." Most SNSs require bi-directional confirmation for Friendship, but some do not. These one-directional ties are sometimes labeled as "Fans" or "Followers," but many sites call these Friends as well. The term "Friends" can be misleading, because the connection does not necessarily mean friendship in the everyday vernacular sense, and the reasons people connect are varied. The public display of relationships is a crucial component of SNSs. The Friends list contains links to each Friend's profile, enabling viewers to traverse the network graph by clicking through the Friends lists. SNSs also provide to see the list of Friends of the Friends but SNSs member can also control whom they want it to be shared with. Most SNSs also provide a mechanism for members to leave messages on their Friends' profiles. This feature typically involves leaving "comments," although sites employ various labels for this feature. In addition, SNSs often have a private messaging feature similar to webmail. Beyond profiles, Friends, comments, and private messaging, SNSs vary greatly in their features and member base.

This paper starts with the introduction of SNS and previous work done on SNS. Section II briefly describes the evolution of SNSs. This paper has also presented a review existing SNS in Section III along with their history and major feature that makes them worldwide famous. The main part of this paper is described in Section IV which includes the novel SNS named Quipmate, developed by us, and explores all the features of this SNS. Section V presents the comparative study between the features of Quipmate with other existing SNSs. Section VI summarizes the paper and also addresses the challenges that we have to resolve for the global operation of this site and future works.

II. EVOLUTION OF SNS

Evolution of SNS is somewhat started as development of email and blogging. The first recognized social network site was launched in 1997. It was SixDegrees.com [15]. It allowed members to create profile, list the friends and later on it allowed surfing the friends list. Such features were not available in chat rooms, blogs and email. But this site comes to an end in 2001. Researcher views

on this, that this SNS for the Internet member was too early. From 2003 onward there have been ample of SNSs sites developed [8]. There are over 250 websites featuring social networking. Such SNS are Facebook [9] launched in 2004 to connect the schools and college initially and now open for all. Orkut [16] by Google [17] launched earlier than Facebook and got much attention from Brazil and India but not in US. LinkedIn [12] was launched in 2003 but it reached profitability in 2006. Another SNS was launched in 2006 named Twitter [11]. It enables members to read and send messages known as Tweets. It is often called as the SMS of the internet. By 2014, social networking services will replace e-mail as the primary vehicle for interpersonal communications for 20 percent of business member [5]. The growth of an online society takes time and effort. To build a vibrant online society, we need ongoing interaction opportunities that will keep a constituent engaged and developing into a lifelong support. Societies are not just created; they evolve so as the SNS, a virtual society.

Some SNS have photo-sharing or video-sharing capabilities; others have built-in blogging and instant messaging technology. There are mobile-specific SNSs [12] but some web-based SNSs also support limited mobile interactions [17]. Many SNSs target people from specific geographical regions or linguistic groups, although this does not always determine the site's constituency [1]. Some sites are designed with specific ethnic, religious, sexual orientation, political, or other identity-driven categories in mind. There are even SNSs for dogs (Dogster) and cats (Catster), although their owners must manage their profiles. While SNSs are often designed to be widely accessible, many attract homogeneous populations initially, so it is not uncommon to find groups using sites to segregate themselves by nationality, age, educational level, or other factors that typically segment society, even if that was not the intention of the designers [1].

III. A REVIEW ON EXISTING SNS

There are approximately 250 SNS currently online. These SNS are based on the member interest distribution. Some of the social networking giants are like Facebook, Twitter, LinkedIn, MySpace, Hi5 etc. Facebook, a SNS mainly focuses on meeting old friends, make new friends, various entertainment applications, etc. On the other hand, LinkedIn, a professional networking site focuses only on professional networking. Both the SNSs, built on common approach but different intentions are most famous ones in the web world. While the Twitter is popular among celebrities while provide only sharing of 140 character messages called Tweets. This section reviews these three social giants, their main feature and some statistics.

In 2004, a new SNS was launched, Facebook, founded by Mark Zuckerberg with his colleague. This was probably another great evolution in the social networking world. Initially launched to connect only college students and required a valid school email ID for registration. The idea behind expanding through schools is to provide better

confidence in the Members. Facebook had 845 million monthly active members at the end of December 2011. And also Facebook is available in 70 different languages. There are 425 million monthly active members who used Facebook mobile products in December 2011.

The basic features include the Wall, to post messages; Photos, where users can upload albums and photos; and Status, to inform their friends of their whereabouts and actions. Depending on privacy settings, anyone who can see a user's profile can also view that user's Wall. Facebook believes in "Build Quick, Change Quick and Iterate." Facebook made a lot of new changes to the product. They have added very new and exciting feature. With subscribe, people can sign up to see public posts in their news feeds from people on Facebook who aren't their friends, like celebrities, thought leaders and other public figures. Ticker is a faster version of news feed, shows the real time update from friends. Timeline is a new kind of profile that lets people organize and highlight the events and activities that matter most to them. Most importantly Social plugins that help developers and publishers drive growth and engagement for their websites with a single line of code.

Before Facebook, LinkedIn was launched in 2003 but it reached profitability in 2006 focus on professional network. LinkedIn was founded by Reid Hoffman and founding team of PayPal and Socailnet.com. LinkedIn operates the world's largest professional network on the Internet with more than 150 million members in over 200 countries and territories. As of December 31, 2011, mobile page views account for more than 15 precent of total unique member visits to LinkedIn. Currently LinkedIn has 161 million members.

The main purpose of the site is to allow registered users to maintain a list of contact details of people with whom they have some level of relationship, called Connections. Users can upload their resume or design their own profile in order to showcase work and community experiences. It can then be used to find jobs, people and business opportunities recommended by someone in one's contact network. Users can also follow different companies. Employers can list jobs and search for potential candidates. LinkedIn also supports the formation of interest groups, and as of March 29, 2012 there are 1,248,019 such groups whose membership varies from 1 to 744,662. In October 2008, LinkedIn enabled an "applications platform" that allows other online services to be embedded within a member's profile page. In November 2010, LinkedIn allowed businesses to list products and services on company profile pages; it also permitted LinkedIn members to "recommend" products and services and write reviews. In July 2011, LinkedIn launched a new feature allowing companies to include an "Apply with LinkedIn" button on job listing pages.

As LinkedIn concentrate on the professional networks, Twitter got its popularity among celebrities. Twitter is an online social networking service and micro blogging service that enables its users to send and read text-based posts of up to 140 characters, known as "tweets", also called SMS of the Internet. It was created in March 2006 by Jack Dorsey and
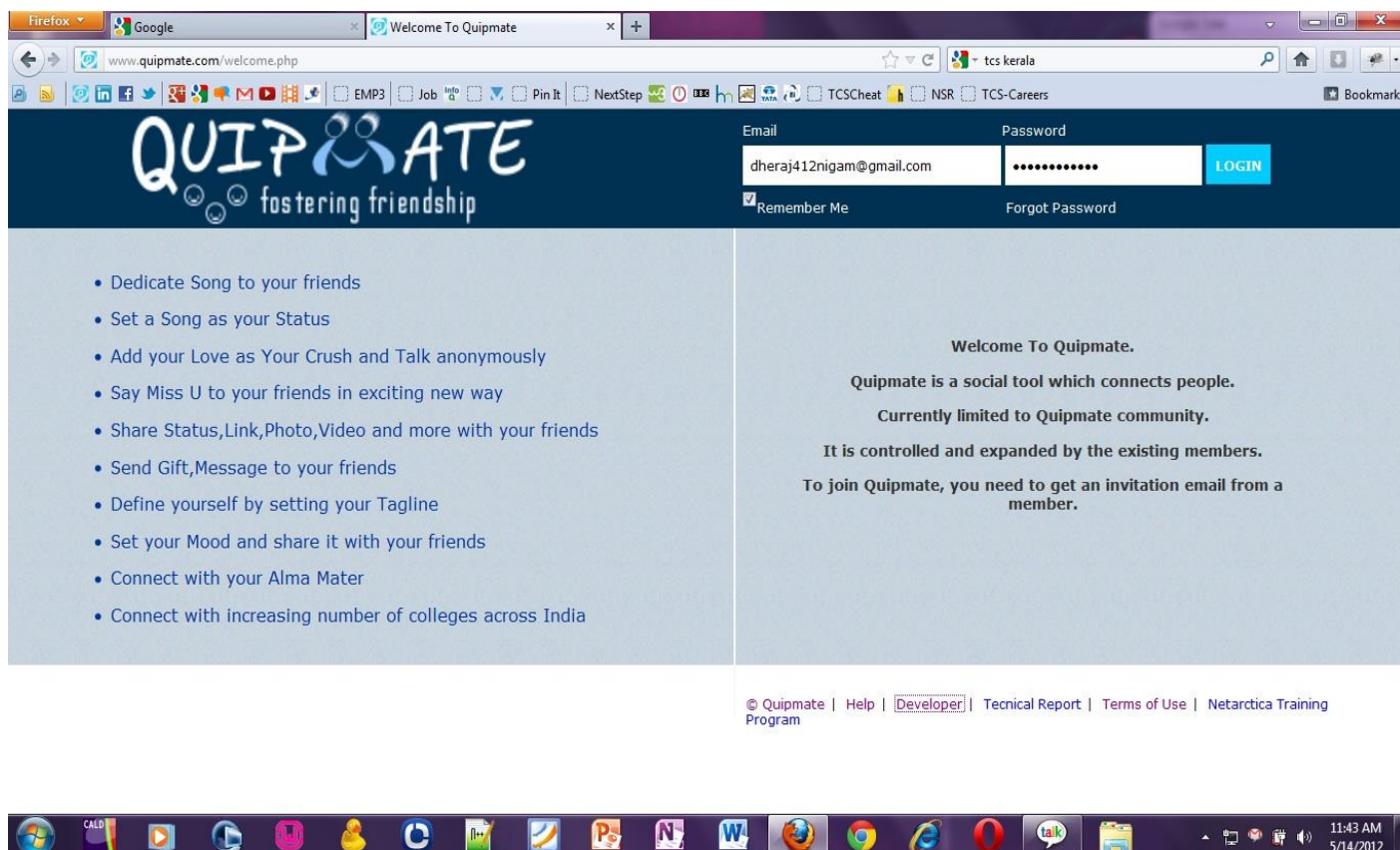
Fig.1 Welcome Page of Quipmate

launched that July. Twitter uses one directional ties i.e. users may subscribe to other users' tweets this is known as following and subscribers are known as followers or tweeps (Twitter + peeps). Users can group posts together by topic or type by use of hash tags words or phrases prefixed with "#" sign. Similarly, the "@" sign followed by a username is used for mentioning or replying to other users. On February 21, 2012, Twitter and Yandex agreed to a partnership. Due to this Twitter finds real time news feeds. On March 21, 2012, Twitter celebrated its sixth birthday while also announcing that it has 140 million users and sees 340 million tweets per day.

IV. QUIPMATE: A NOVEL SNS

Quipmate [10] is the new initiative taken by us. The term "Quipmate" comprises of two word, i.e. Quip + Mate. According to Cambridge Advanced Learner Dictionary, quip means "a clever and amusing remark". Thus Quipmate means making clever and amusing remarks on your mates i.e. your friends. The main theme of this SNS is to put the offline structure online and to create and maintain the online identity of a person by creating their diaries and Friends and do the best to describe the feeling of person on the Internet. Quipmate is developed by us and went live on 17th October, 2011. Currently number of Quipmate's members is 2700 and

counting. Fig. 1 shows the screenshot of welcome page. The registering process is invitation-based. As for as features is concerned, this SNS incorporates many new concepts that are direct taken from our day-to-day life experiences. Following points describes the features that are incorporated in this SNS.

A. Diary

Quipmate creates the online diary of the each member after signup process. This concept is simulations of the diaries that people are used to write. They maintain all of their activities and experiences. Thus in this era of the Internet, this SNS provide them online diary structure to do the same and provide a lot extra facilities to manage them. In the dairy, all the activity of members is recorded and the owner of diary can control the visibility and privacy of the post from the friends. There are two types of the diary we have implemented. First one is My Diary is the default diary of the members in which all the activities of the member is recorded along with the friends activity on that member. Second is the Interest Diary that is the diary any one can create on the basis of their interest/hobby. The members of the Quipmate can be the fan of diary on the basis of that diary privacy. Interest Diary privacy is Open Diary/Close Diary.

B. Status Song & Song Dedication

We are trying to do our best to put the feeling of person online. Music is the best way to express the feeling. With this whole idea, Quipmate incorporated the feature named "Status Song". In this feature, there is an interface via which members can search the songs and put it as a status. Friends can play these songs and listen to them. Because there are a lot of songs which describe the same as one's feelings, thus it will be easy to share feeling via songs. Along with Status Song, we can also dedicate a song to our friends. Unlike Status Song, which expresses what members are feeling, Song Dedication expresses what members are feeling for their friends i.e. members can sing a song for their friends.

C. Miss-U

This is another exciting feature that we have implemented to say your friend that you are missing them. They can miss you back in response to your miss you. To maintain the privacy, we never reveal the identity of the person who is missing their friends.
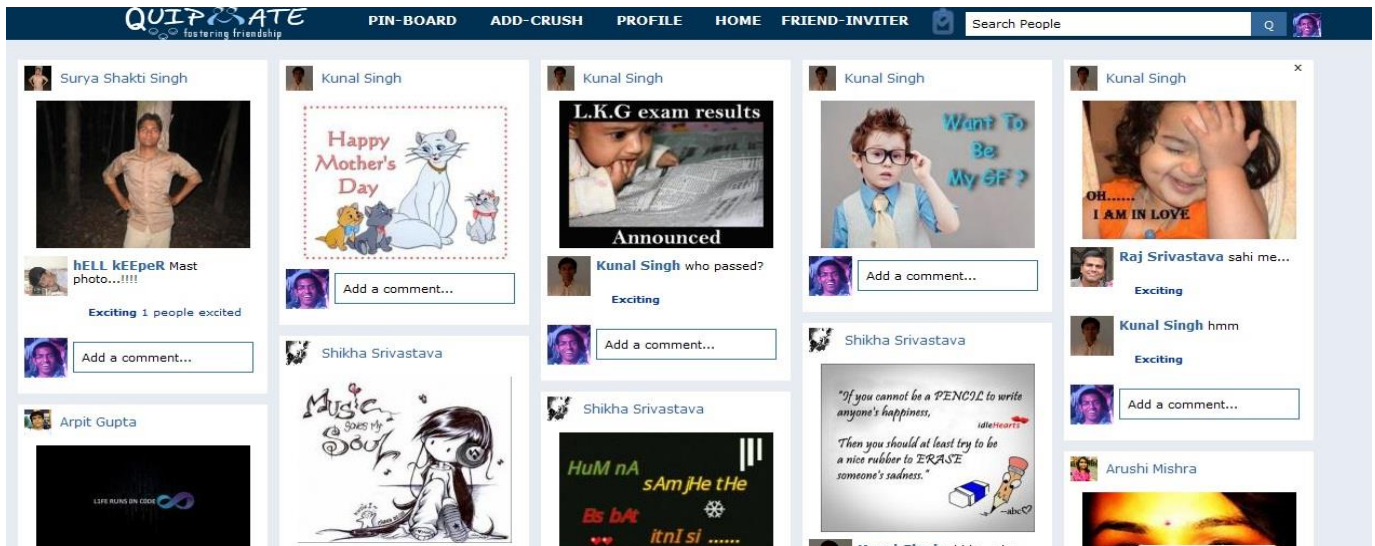

Fig. 2 Screenshot of Pin Boar

D. Crush-Match

On moving forward to simulate the online social structure, Quipmate can't avoid to explore the love relationship. Basically this feature is for lovers. Crush match is another very unique feature created for people who cannot express their love to their crush. Using crush match members can add their love to their crush list. In that case his/her crush receives an anonymous email from Quipmate telling someone added her/him into crush list. Crush match happens when his/her crush adds back that person into his/her crush list. Meanwhile using personal messaging both of them can talk keeping the initiators identity hidden. To add crush to crush list, member can enter his crush's email in the provide box. After adding his crush into his crush list, their crush will receive an anonymous email from Quipmate saying someone added her/him as crush at Quipmate. Person's identity will not be revealed in this email. This email will also contain a link which your crush will use to communicate with you using Quipmate's personal messaging system. Members can find their crush's messages inside their inbox at Quipmate. Members can use this thread to communicate with their crush. Meanwhile if their crush gets some hint about members, she/he will attempt adding them as crush at Quipmate. If she/he also adds that member as crush at Quipmate that means she/he also has crush on him. It's a crush match. Now Quipmate reveal members as well his/her crush identity now. Member's friends, as well as member's crush's friends will get an update about this successful crush match.

E. Pin Board-A Photo Sharing tool

It is said that a picture is worth of thousand words. Any SNS will look dead if it doesn't provide the image sharing. Pin Board is a photo sharing tool that displays the photos of people collectively that is shared with the member. Fig. 2 shows the screenshot of Pin Board. It is another exciting way of representing the collection of photos. This tool also shows the comments made on those pictures and can also put comments on that. Members can also view the image of member individually by visiting their profiles.

F. Mood Sharing

Mood sharing is the pictorial way of representing the way a member feels at particular time. In mood sharing, there's a list of emoticons that is used to represent the various expressions of human. Friends can also response to these shared posts. Fig. 3 shows the various moods to share according to your mood.

Fig. 3 Various Moods

G. Tagline

Tagline is a short message that describes what drives a member for a particular span of time. It displays along with the each post of the members. Members can set their tagline by visiting their profiles. By seeing the tagline, member's friends can guess the mindset of the member.

H. Gift

This is also a very exciting feature that simulates the trend of sending gifts to friends in a particular occasion. There is a set of gift i.e. is a virtual gifts or pictorial gifts members can send to their friends. This sharing is open i.e. this is visible to friends of sender as well as receiver. Members need not to pay for these gifts.

I. Responses to the Post and Other Features

Members can respond to the post posted by their friends by following using following three response types. These responses are:

1) *Exciting:* This response is used to show that, the posted material is amusing. And the reader of the post likes this post.

2) *Sad:* This response is also self-explanatory. This response denotes that the viewer of the post is sad due the content of posted material.

3) *New-Pinch:* New-Pinch response is associated with the "profile picture change" action. Whenever any member changes his/her profile picture, friends of that member can respond to this action by new-pinching them because changing profile picture is analogous to changing clothes in offline social life. New-Pinch is jargon among college friends that is used to give complements to the friends on their appearance.

Exciting and Sad are the two responses for the each shared post/image posted by friends. These terms are self-explanatory. The reason for choosing these words are these words are only things any member can feel about any posts. Members can also respond to any comment made on post/shared images by using "Exciting". And as described, New-Pinch is taken from day-to-day college life.

There is also other feature that we have included in this SNS. One of the entertaining features of this SNS is "Playing Games". In this, two member of the Quipmate can compete with each other in the game. "Online Chat" is also part of any SNS. "Chat Rooms" is also incorporated in which members can create their own chat room and invite their friends to the room. Thus this provides the facility of chatting with more than one person.

There are various applications in this SNS. The "Friend Finder Tool" let you search your friend in Quipmate world. If members have made mistakes then they can also delete their post, images. Search tool is also there to assist member to find the friends and Interests Diaries, school and colleges. We provide an extensive privacy on the information provided by the members of the Quipmate so that they can control their personal data.

V. COMPARISON OF QUIPMATE WITH EXISTING SNS

Above sections described the history, development, statistics and the major feature of the existing as well as new social networking site Quipmate. This section describes the comparative study of Quipmate with other SNSs.

As compared to the Wall, a feature of Facebook, we are using Diaries to show the post of members and their friend's post on them. As for as Poke feature is considered, we have modify it and give a concept of Miss-U that is more analogues to offline social structure. Unlike traditional Like features of Facebook, Quipmate incorporates two types of response for a posted material i.e. Sad and Exciting.

Quipmate have not included the One-Directional ties for relationship as done in Twitter for followers/following for people. In spite of people, members can create Diaries of the various items like games, food, travel, vehicle, celebrity, music and etc. Other Members can follow these diaries and can become Fans i.e. the one-directional ties. They can also post on them as according to given permission.

As compared to LinkedIn, this is a general social networking site and does not specifically dedicated for

professional purpose but can be used for the same. The existing social networking sites don't give much attention the features like Status Song and Song dedication. And as described above, these are the best way to describe the feeling of the any person. Quipmate's main idea is to closely imitate the offline social structure to online and so incorporating these features taken from day-to-day life makes Quipmate a better platform for the online social structure.

VI. CONCLUSION AND FUTURE WORKS

This paper tries to make an attempt to understand the developmental history, lessons for developing SNS, various features of existing SNS. And based on this study, we designed and implemented a novel social networking site **Quipmate**. As we have seen, there are good number of SNSs (around 250) and approximately each country have their own SNS(s). On the other hand Facebook, Twitter, LinkedIn and others are worldwide famous. Each SNS has its own limitations and strengths. Our proposed Quipmate has its own unique features in addition to having some common features supported by other SNSs. These unique features are very likely to make this SNS a very popular one in the year ahead. This will be India's first social networking site with incorporating all the features from SNS giants and also implementing some of the new exciting features as explained closely simulating the offline social structure online.

For any social networking site to be popular depends on how it represents the social structure of a person online. As described in Section IV, Quipmate have features like Diary, Song Dedication, Status Song, Pin Board, Mood Sharing and other features that represents the offline social structure very closely. Societies are not just created; they evolve so as the SNS, a virtual society. To build a vibrant online society, we need ongoing interaction opportunities that will keep a constituent engaged and developing into a lifelong support.

Future works include developing the mobile version of this site, application for different mobile platforms like Android [18] and the application programming interface (API) to let the members develop the various applications for members. For global operation of this site, we have to face the various challenges like scalability issues for handle a large number of members, financial assistance for setting up data centres and the publishing and marketing of this SNS.

SNS needs a lot of research work to make the SNS more useful, more open and more users intuitive. With time, more people are associating with the Internet and by 2014, social networking services will replace e-mail as the primary vehicle for interpersonal communications for 20 precent of business users [5]. This paper should be taken as a foundation to understand the working of big SNSs and should help the aspiring developer in the web world having strong desire to develop social networking sites. .

REFERENCES

[1] D. M. Boyd, and N. B. Ellision, "Social network sites: Definition, history, and scholarship," *Journal of Computer-Mediated Communication.*, vol. 13, article 11, Sep. 2007.

[2] Teens, privacy, & online social networks (2007). [Online]. Available: http://www.pewinternet.org/pdfs/PIP_Teens_Privacy_SNS_Report_Final.pdf.

[3] J. Donath, D. M. Boyd, C. Dwyer, S. R. Hiltz, and K. Passerini, "Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace," *Proceedings of AMCIS 2007, Keystone, CO. BT Technology Journal*, vol. 22, pp. 71–82, 2007.

[4] A. Acquisti, and R. Gross, "Imagined communities: Awareness, information sharing, and privacy on the Facebook," *Proceedings of 6th Workshop on Privacy Enhancing Technologies, Cambridge, UK: Robinson College,* pp. 36-58, 2006.

[5] Gartner Identity & Access Management Summit (2008). [Online]. Available: htttp://www.gartner.com/it/content/607200/607211/iam2008_brochure.pdf

[6] ComScore Social networking goes global (2007). [Online]. Available: http://www.comscore.com/press/release.asp?press=1555

[7] (2002) The IEEE website. [Online]. Available: http://www.ieee.org/

[8] A. Patel, "Comparative Study and Analysis of Social Networking Sites," M. Sc. thesis, San Diego State University, San Diego, California, Dec. 2010.

[9] (2012) The Facebook website. [Online]. Available: http://www.facebook.com/

[10] (2012) The Quipmate website. [Online]. Available: http://www.quipmate.com/

[11] (2012) The Twitter website. [Online]. Available: http://www.twitter.com/

[12] (2012) The LinkedIn website. [Online]. Available: http://www.linkedin.org/

[13] (2012) The Wikipedia website. [Online]. Available: http://en.wikipedia.org/

[14] N. Ellison, C. Steinfield, and C. Lampe, "The benefits of Facebook 'friends': Exploring the relationship between college students' use of online social networks and social capital," *Journal of Computer-Mediated Communication*, vol. 12, article 1, 2007.

[15] (2012) The Sixdegrees website. [Online]. Available: http://www.sixdegrees.com

[16] (2012) The Orkut website. [Online]. Available: http://www.orkut.com

[17] (2012) The Google website. [Online]. Available: http://www.google.com

[18] (2012) The Android website. [Online]. Available: http://www.android.com