Students’ Use of Email and Facebook: 
A Comparative Perspective

by

Synthia Bintey Rahman

Supervisor

Else Nygren

Autumn 2012
Table of Contents

List of Figures & Tables ........................................................................................................... 3
Abstract .................................................................................................................................. 4

1. Introduction ................................................................................................................. 5
   1.1 Background of the Study ......................................................................................... 6
      1.1.1 Email: Facts and Features ............................................................................. 6
      1.1.2 Facebook: Facts and Features ...................................................................... 8
      1.1.3 Facebook vs. Email: Two points of Thesis Statements ............................ 11
   1.2. Research Questions and Objectives ...................................................................... 12

2. Theoretical Background ................................................................................................. 13
   2.1.1 ICT & Society ................................................................................................... 13
   2.1.2 The Network Society ....................................................................................... 14
   2.1.3 Social Networking Sites (SNSs) & Mass-self Communication ....................... 16
   2.2. Uses & Gratification Theory ................................................................................ 18
   2.3. Media Richness Theory ....................................................................................... 21

3. Methodologies .............................................................................................................. 23
   3.1. Area of Survey .................................................................................................... 24
   3.2. Motivation for Selecting the Media ..................................................................... 24
   3.3 Data Collection Procedure ................................................................................... 25
      3.3.1. Questionnaire Survey .................................................................................. 25
      3.3.2. Questionnaire Design .................................................................................. 26
      3.3.3. Online Survey ................................................................................................ 27
      3.3.4. Offline Survey ................................................................................................. 27
   3.4. Survey Data Analysis Procedure .......................................................................... 27
   3.5. Focus Groups ...................................................................................................... 28
      3.5.1. Focus groups Data Analysis Procedure ....................................................... 30

4. Results and Analysis .................................................................................................... 31
   4.1. Findings from the Questionnaire Survey ............................................................. 31
      4.1.1. Findings from the Closed-ended Questions ................................................. 31
      4.1.2. Findings from the Open-ended Questions .................................................... 40
         4.1.2.1. Reasons for Using Facebook and Email .................................................. 40
   4.2. Focus Groups Results ......................................................................................... 50
4. 3. Analysis of the Results ................................................................. 61
  4.3.1. Summary of the Results ......................................................... 61
  4.3.2. Theoretical Reflections ......................................................... 64

5. Discussions and Conclusion ......................................................... 67
  5.1. Discussions ................................................................. 67
  5.1. Limitations ................................................................. 68
  5.3. Conclusion ................................................................. 68

Appendix A: Charts Based on the Research Results .................................. 71
Appendix B: Survey Questionnaire ....................................................... 83

References ................................................................. 87

List of Figures & Tables
  Figure 1: Main reasons for using facebook based on closed ended questions .... 33
  Figure 2: Main reasons for using email based on closed ended questions ....... 35
  Table 1: Reasons for using facebook, results from open ended questions ....... 41
  Table 2: Reasons for using email, results from open ended questions .......... 46
Abstract

Facebook and email are wonderful innovation in the Internet age whereby people are interconnected in the global network society. Students are among the most active users of email and facebook in online communities. This research investigates dimensions of university students’ facebook and email usages, changes in students’ communication pattern, and their perceptions regarding facebook and email. This study was accomplished by a mixed method research using a questionnaire survey (n=321) and focus groups discussions, and grounded in both Uses and Gratifications and Media Richness Theory. Research found that students use facebook for non-professional and informal reasons and email for professional and formal reasons. Research found changes in students’ communications pattern in the last two years; use of email for social communication decreased and use of facebook increased instead. But students are firm about using email for formal and professional communications. Students perceive facebook as an easier, faster, and convenient mode for social and group communication and to organize events; and they perceive email as more formal mode, which they can use for professional communication. Students do not think that facebook can serve all the purposes of email. The results suggest that email is no longer being used for all sorts of communication. Although students’ use both media simultaneously but with keeping distinction between social and professional communication; they choose media according to their needs and satisfaction, and they also consider how rich the medium is for a specific communication purpose.

**Key words:** Email, Facebook, Social Networking Sites (SNSs), Mass-self Communication, the Network Society, Uses and Gratification Approach, Media Richness Theory and ICT.
1. Introduction

University students are the mass users of email and facebook. Writing email, participating in different chat rooms or contributing to some discussion forums have been a part of students’ everyday life (Margaryan and Littlejohn 2011). Accordingly, in joining social networking sites (SNSs), students are a majority portion among the online communities. A study conducted in the USA has revealed that 85% of students use SNSs (e.g., facebook) everyday (Salaway, Caruso and Nelson 2008). More precisely, more than 90% of college students have facebook accounts, and they spend an average of 30 min to 1.46 hr per day on the site (Raacke and Bonds-Raacke 2008, Sheldon 2008) that leaves the message that ‘student life without facebook is almost unthinkable’ (Debatin, et al. 2009, 83). This is needless to say that human communication patterns have been changed within the changing landscapes of new media and information communication technologies. The rapid and variant development of new communication technologies offers multiple communications platforms (e.g., SNSs) for online users. Students are using mail, SNSs as well as other communication tools according to scope, nature and features of such tools. Facebook and email are two different types of communication tools considering the way they structured, the features they serve, and by time of their inception to online world. However, there are some common communications features between email and facebook that one may use any of these tools for respective purpose.

The present study is designed on uses and gratification and media richness theory to see the dimensions of using facebook and email by the students; to see what are the reasons (for gratification or for rich media) that affecting students’ communication pattern to use email and facebook for same purposes of communication now and then, and finally, to find out the overall perception of students with regard to the functions of email and facebook.

Following this introduction, a brief overview of the facts and features of email and facebook is provided; facebook’s impacts to email and existing research and thesis statement presented. The two guiding theoretical position, uses and gratification and media richness theory, is introduced (chapter 2) after covering ICT and society, the network society, social networking sites and mass-self communication. After a description on methods using for this thesis (chapter 3), the results from the survey and focus groups discussions and analysis in light of the theories are presented (chapter, 4). The article concludes with a discussion, concise
findings according to the research questions, limitations of the study and implications for further research (chapter, 5).

1.1. Background of the study

1.1.1. Email: Facts & Features

I'll stick with e-mail -- write when I want, as often (or not) as I want, to whom I want privately. No interest in letting the world know that I overcooked the spaghetti.

-Don Brazier, The World Street Journal, October 12, 2009

Email is the oldest communication platform in the history of the Internet development. Before introduction of Facebook, email was the only communication channel that grasped the users for its facilities for personal to professional communication. In the history, the first email was sent at the MIT with a limited option to send message to other from the same computer in 1965. Later, Ray Tomlinson is the person credited for sending email between computers in 1971 (Limberg 2008). A decade later, email came with extended version and is started to be used in the corporate sector in 1980’s (Goldsborough 2011). Soon after, its transformation has gone beyond much anticipation. With regard to email transformation, Tomlinson stated that "it has had ramifications through many people's lives. What I didn't anticipate is how fast it would grow once it started growing" (Limberg 2008). Email then has been a daily personal, professional (job and education) and business communication platform crossing every level of net users despite some sort of shortcomings including efficiency, speed and private matters. Some statistics indicate a clear point to understand the vibrant use and dependency on this communication platform. In the USA "there are more emails sent every day than telephone calls. Its volume surpasses that of the U.S. Postal Service" (Easton and Bommelje 2011). More likely, in the UK two million e-mails are sent every minute, which is almost three billion per day (Limberg 2008). What was behind that made this communication tool that much accepted around the world? The primary answer is its speed and versatility that make email different from others communication channel. Moreover, in the WWW, email comes structurally with easy and friendly interfaces (by providers such as Yahoo and Hotmail) as well as an option of having free email ID that grasped easily the major net users (Peter 2004). Email is delivered faster than any other traditional post. It is easy, simple and effective in function and not limited within time, place and persons. Email can be sent 24 hours a day from any place to many persons. Email contents include text, photograph and multiple files such as audio, video and graphics. Email attachment option allows users to send and store...
huge chunks of such data in a mail. Email’s search, filters and folder option work as time savers as they help users to find expected email and organize different types of email received in inbox (Goldsborough 2011).

In the education sector, email is widely accepted for professional/educational and social corresponding between students and faculty or instructor. It is considered as a proven medium that provides students an extended opportunity to interact with instructors (Bloch 2002, 304). According to Hinkle (2002, 27), email is “increasingly becoming the preferred means of communication between students and faculty”. The expansion of new media and growing acceptance of new communication tools (e.g., text messaging, instant messaging, and email) out-of-class communication has extended (Hassini 2006). Bjørge (2007) nicely described such form of email communication between students and faculty. He stated that ‘students write emails to ask for information about tricky points in their course curriculum, for help concerning written assignments, deadlines and exam dates; they complain when they are unhappy about their marks, and also write thank you emails when their requests have been accommodated. Thus, email is now being used for online message exchanges that previously took place in information meetings, in breaks between lectures, telephone calls and visits to the professor’s office. If we compare these modes, it will be clear that email, by facilitating contact between professors and students, has generated large volumes of written correspondence that would otherwise not have taken place’ (Bjørge 2007,63). Email also contributes to develop social relationships between student and instructor. A study on professor-student email communication, interpersonal relationship and teaching evaluation show that email communication has contributed positively to both professor-student relationship and teaching evaluation (Sheer and Fung 2007).

Likewise in business, email is recognized as an essential tool of communication between companies/organizations and regular or potential consumers. It is being used most widely in today's business world. A study reveals that Over 80% of small business owners believe e-mail is a key to the success of their business (Campbell 2007). Email is found to be useful in offering special sales and giving new product information (Martin, et al. 2003). Most business workers today spend from one to two hours of their working day on email: reading, ordering, sorting, re-contextualizing fragmented information, and writing email. Many of them considered email as critical to their success and to increase productivity at work (Malik 2010). It is also considered as the first ‘e-revolution’ in business communication (Wikipedia 2012).
Despite leaving many opportunities, email has some problems at the process it functions. The general limitations include loss of context (one cannot get back the message once it is sent), information overload, inconsistency, liability, spam mail and computer viruses (Wikipedia 2012). Moreover, for many, email is not a reliable medium. Though there are online services that give the security or privacy of email. Yet, for sending normal or everyday email people do not use this type of special services often. On the other hand, the versatility of email can be limited. Users can attach photos, music, and other files to emails to send them to others, but again here is limitation of the file size (Goldsborough 2011). Beyond these general limitations, many consider email as time consuming, frustrating and sometimes a matter of anxiety. Study shows that ‘one-third of office workers suffer from email stress’ (Limberg 2008). Dealing with email is probably a common task that all workers do to maintain office communication. However, it is worth noting when Bin Limberg says ‘we can spend up to half our working day going through our inbox, leaving us tired, frustrated and unproductive’ (Limberg 2008). These situations come across through a plenty of information based emails and spams, which are sent by multiple senders. On the other hand, Professor Cary Cooper observed different context of using mail. For example, he notes that the huge number of emails and the poorly written emails create anxiety among the employees. He considered email as one of the most pernicious stressors of our time, however, email is still serving as one of the most used ways of communication in personal, professional and business and space.

1.1.2. Facebook: Facts and Features

This week I signed up for Facebook. I have contradictory feelings about it, frankly. I’ve been avoiding it because it seems like just one more thing to keep track of, be distracted by, and become addicted to (and it turns out that it is!). And yet, here I am, enjoying hearing from old friends, learning about events happening in their lives and around my community, reading great links to all sorts of stuff, and seeing all kinds of photos (not sure I should see them all). It’s fun! Still, I feel like I’m being sucked into an ever-growing swirl of wall comments, chats, notes, references, photos, You Tube links, and Web stuff! I’m reminded of the Great Pacific Garbage Patch, a floating mass of mostly plastic waste now at least the size of Texas and growing exponentially in the ocean. My students tell me that between texting and Facebook, they almost never read e-mail anymore! Good Lord. How many of you remember how it felt to be able to communicate so easily using e-mail? It felt like a miracle! (Martusewicz 2010, 447).

In the above citation Martusewicz nicely described her attachment with facebook and the
attitude towards the changing mode of communication and its facilities from email to facebook. Facebook has been the most widely used communication platform among social networking sites. It is now on the landmark of one billion users with 219 billion photos, and 17 billion identified locations (BBC 2012, Facebook 2012) has become the most popular site in the world. According to the last three month’s Internet traffic rankings, facebook ranks the 1st position in terms of highest visitors among 500 top sites (Alexa.com 2012). The journey of facebook was started in the year 2004. Mark Zuckerberg is the man who innovated and introduced facebook as an internal student’s network in the Harvard university study circle. The very soon ‘thefacebook.com’ got tremendous response from the students at Harvard and cross the boundaries to other universities in the USA. The ‘thefacebook.com’ shifted to ‘facebook.com’ in August 2005 and was opened to the UK universities lately in the same year and then proliferated globally in September 2006 (Phillips 2007). Then, facebook has received immense popularity with lots of registered users within short time, and from then on the numbers of users are increasingly expanding. For example, facebook records 20 million users in April 2007 and it reaches to 100 million in August 2008. Just by one year facebook turns to 300 million of users in September 2009. It gets 500 millions of registered users in July 2010. And just by two year in September 14, 2012, facebook users become double to one billion (Facebook 2012).

The motto of facebook is ‘to make the world more open and connected. People use Facebook to stay connected with friends and family, to discover what's going on in the world, and to share and express what matters to them’ (Facebook 2012). More precisely, Zuckerberg states the aim of facebook is ‘to create a richer, faster way for people to share information about what was happening around them. We thought that giving people better tools to communicate would help them better understand the world, which would then give them even greater power to change the world’ (Zuckerberg 2009). Facebook is being considered as ‘a technological powerhouse with unprecedented influence across modern life, both public and private’ (Kirkpatrick 2011, 15).

To fill the aim stated above, facebook includes multiple communications features, such as Status updates, Wall posts, Messages, Chat, and Groups. Users can update status by writing a short text in the selected place, which stored as News feed, a feature that portrays news, events, stories, photos shared by friends, groups of one’s network. One can like, comment or share any news feed. The wall is the personal profile of user and also a hub of all sorts of content (text/post, audio, video, photo etc.) including external content and comment posted by
facebook friends. The message option offers users to communicate via private messages, emails, chats, and even text messages. Users can receive or send messages to other facebook user even though they are not in their friends list. Users can also send private group messages. Facebook allows users to make groups. This option provides user a unique way to make a meeting place for or among people with common interest, student, peers, alumni, like-minded people and so on. Creating a specific ‘page’ is one of the popular features on facebook. Besides hundreds of millions of facebook users, many of the organizations in this planet now have a facebook page, whether it is a business organization, non-profit or University. Facebook ‘pages’ have become a big place to show their existence and communicate to the stakeholders or publicize their product. According to facebook ‘A Facebook Page gives a voice to any brand, business or organization to join the conversation with Facebook users.’ (FacebookB u.d.)

Facebook has also some entertaining features. For example, sharing and tagging photos, updating status or posting photos or links on Timeline, and using activity log. Sharing photos and videos are among the most used features on facebook. Facebook gives unlimited space for uploading photos and videos. All of them can be shared with other friends through tag option. Timeline is an option that allows users to set a cover photo to make its display attractive and also allow users to highlight activities maintaining the real time of the incidents, which eventually displays user’s activities of different times. The Activity log allows user to review their activities on facebook from present to past. The control features give the opportunity to control over friends list. Users can handle the privacy setting, like to whom they want something to appear, which friend’s news feed they want to see. Over all, it is possible to prioritize friends, sometimes even marking as ‘family’ ‘close friends’ ‘University friends’ etc. Another most frequently used feature on facebook is ‘events’, users can make events to invite friends, to organise meeting and whatever. The feature also allows reminding people / guest about the event. Facebook statistic shows 16 million events were created on the site in a month (Facebook 2012), that must be a sign to imagine how much popular the feature is among the facebook users. Among the popular features on facebook ‘subscribe’ is one where people can subscribe people, mostly celebrities or political figure, who are not their friend to see their update and activities on their news feed. Facebook introduced a new feature about a year ago called ‘Ticker’, facebook defines ‘Ticker’ as ‘faster version of news feed’ (Facebook 2012), which shows posts live on a small window.
1.1.3. Facebook vs. Email: Two points of thesis statements

No doubt, facebook is a user-friendly, inexpensive, and functionally established social networking site, which offers various facilities to get connected with friends and family, and also made personal and public communication easier (Fischer and Rebecca 2011). People are getting options to be closer, more precisely with their friends, families, and relatives and further with many known and unknown users through facebook. Beyond these, facebook has also been a platform for education, business, information, finance, news, funs so on. On facebook, a new communication behavior has emerged, which has brought a new dimension within the array of the network of social relationships, whereas the email has been the way of formal and informal communication between correspondences (Judd 2010).

Statement 1: Taking the above facts, many consider that for the advent of SNSs (facebook, instant messaging etc.), email is losing popularity among the students after recognizing as a slow and inefficient medium than facebook, which is affecting the habit of using email. For instance, a study claims that Instant Messaging (IM) shifts email (Ramirez, et al. 2008), and a report by the Nielsen Company shows that ‘Americans are spending nearly a quarter of their time online on social networking sites and blogs and less than ten percent of their time online emailing, and roughly 60 percent of appliances respondents and automobile purchasers believe that fan-based communication on social networking sites are beginning to replace other communication channels (e.g., email, direct mail, etc.)’ (Justin 2010). A researcher alerts on his study on Computer-mediated accounting communication skills that to make students ready for their future office, besides effective email messaging students should be taught maintaining a professional presence on social media because email is serving as old communication mode but some other digital invention will take the place of today’s electronic mail (Jones 2011). Accordingly, in the study ‘facebook versus email’ Judd (2010) has revealed a certain decline of using webmail by the students at the university, rather they are moving to SNSs. Therefore, many say ‘email has had a good run as king of communications. But its reign is over’ (Vascellaro 2009). What is true for students in this study context? What are students’ perceptions and motivations about using email when they are using facebook at the same time? What communication aspects have they changed due to gratification sought and gratification obtained?

Statement 2: There has been a stream of studies with regard to facebook, its different aspects and its potential use in social context. Some recent topics of such research include: reasons for
using Facebook (Cheung, Chiu, and Lee 2011), Facebook and education application (e.g., classroom use, web-based learning), (Decarie 2010, Dyrud 2011, Malita 2011), Students-teachers interaction (Teclehaimanot and Hickman 2011, Cheung and Vogel 2011). Gender differences among students of Facebook users (Thompson and Lougheed 2012), Privacy issue of using Facebook (Debatin, et al. 2009, 83). Content analysis of student’s Facebook group (Fernandes, et al. 2010), content analysis of user profiles (Westerman and Tong 2008), and information on characteristics of users and nonusers (Raacke and Bonds-Raacke 2008). However, few studies have taken a comparative perspective, which compare Facebook with other SNSs. For example, Bonds-Raacke and Raacke (2010) have made a comparison between MySpace and Facebook from the uses and gratification perspective. Similarly, from the same perspective, Quan-Haase and Young (2010) have compared Facebook with instant messaging. But there is no single study that has compared Facebook and email considering using dimensions of students over a selected period of time. The only exception is Judd (2010) who has conducted a study titled ‘Facebook versus email’ that reveals the facts of the impacts of Facebook on students’ webmail using. However, it does not represent a study as mainstream email versus Facebook.

1.2. Research Questions and Objectives

Given the above facts, the objectives of the study are to identify the contexts in which students have changed the way of their communication through Facebook and email and the theoretical reasons that work behind those contexts of changing. Moreover, the aim of the study is also to discover students’ perceptions toward these two media. Therefore, the research questions of this study are as follows:

RQ. 1. What are the dimensions of using Facebook and email for students’ everyday communication?

RQ. 2. What changes have occurred in students’ communication pattern in terms of Facebook and email usage?

RQ. 3. How do students perceive Facebook and email as communication tools?

Based on media uses and gratification theory and media richness theory (discussed in chapter 2), the study will seek answers of mentioned questions having a questionnaire survey and focus groups discussion as methodology (discussed in chapter 3).
2. Theoretical Background

This chapter presents a solid theoretical stance with regard to the subject matter of my thesis. I have described here a broad range of theoretical aspects into two parts aiming to end with specific theories, the main analytical tools to analyse the results. The first part describes ICT and society, the network society, social media and mass-self communication. All these concepts are included as they are highly related to the development of email and facebook. Therefore, the concepts will help to understand the contexts of technological development, notion and characteristics of advanced communication platforms (e.g. facebook and email) and their impacts on recent communication network from individual and society. The two main theoretical tools, media uses and gratification theory and media richness theory are discussed in the second and third sections of this chapter. These two theories are widely considered for media and audience studies, and I suppose from the notion of those theories, people intent to use advanced media to be gratified.

2.1.1. ICT & Society

We have entered into ‘a new technological paradigm’ (Castells 2000,5), which basically implies the rapid and variant development and diffusion of different Information and Communication Technologies (ICTs). ICTs have been the critical force in the process of globalization and the global information society. ICTs refer to a set of electronic devices that leads to create, storage, retrieval, manipulation, transmission and receipt of digital information (Hasan, 2012). ICTs are not a single component or unit but a sector, which is vast and diversified and often treated as the combination of Informatics, Internet and telecommunications (Mansell 1999). For Marcell (2000) ICT is “a complex and heterogeneous set of goods, applications and services used for producing, distributing, processing and transforming information– which are outputs of telecommunications, television and radio broadcasting, computer hardware and software, computer services and electronic media (e.g. Internet, electronic mail, electronic commerce, computer games)”.

ICTs are influencing people’s lives in many ways such as education to leisure to the management of interpersonal relations, from the office to the family to the school, and from politics to entertainment to culture to the economy (Low 2000, VII), and thereby contributing to different aspects of society for bringing a positive change. Wakelin and Shadrach (2001, 3) stated that ‘information and Communications Technologies (ICTs), such as the world wide web, e-mail, telephones, fiber optics and satellites are revolutionizing the way in which
societies interact, conduct their businesses, compete in international markets and set their economic and human development agendas. ICTs can enable societies to produce, access, adapt and apply greater amounts of information, more rapidly and at reduced costs, and offer enormous opportunities for enhancing business productivity and economic activity. ICTs can also contribute towards strengthening democracy, increasing social participation, competing in the global market place and removing barriers to modernization, making poor populations fuller agents in the sustainable developmental process’.

The scopes and natures of ICTs are not only striking our thinking of our self, our identity, of time and of wellbeing but also gradually changing our perceptions and conceptions, values and ideals towards society, politics, economy, culture, development and the world view (Fors 2006, 2-3). The continuous global technological development and its multiple features and options have given scholars to develop different framework or theory to explore ICT’s impacts on individual to society and globe. For example, the time is Appdurai’s ‘technoscape’ where information and communication technologies across the borders at high speed that has led Toffer’s ‘infosphere’ where we live in the easy flow of information that brings Castell’s ‘the network society’ where we are easily connected to each other through ICTs.

2.1.2. The Network Society

The concept of the network society given by Manuel Castells is most widely discussed matter in the information society studies. Considering multidimensional process of social transformation over years, he coined this concept to identify the characteristics of current social structure of the Information Age. In his words, ‘a historical trend, dominant functions and processes are increasingly organized around networks. Networks constitute the new social morphology of our societies, and the diffusion of networking logic substantially modifies the operation and outcomes in processes of production, experience, power and culture’ (Castells, The Information Age Economy, Society and Culture 1996, 469). These networks are described as a structure of interconnected ‘nodes’ (different points) and ‘ties’ (connections), which are multiple, intersecting and often redundant. A network is formed when different

---

1 This is Appdurai’s one of the metaphors of the ‘theory of scape’ using in describing the process of globalization. According to him globalization consists of the junctures and disjuncture of five scapes : ethoscape, mediascape, technoscape, financescape, ideoscape (Rantanen 2005)

2 In The Third Wave, Alvin Toffler asserts that a revolution has pushed society into an ‘infosphere’ where information and communication technologies (ICTs) have radically changed our social, political, economical and working environments (Gyamfi 2005)
nodes such as people, organizations, computers, come to make a common link, usually by many ties, which often cross the ties and connect other nodes (Castells, Network Society: From Knowledge to Policy 2005).

Networks are open by structure as they remain the condition of adding and rejecting any nodes in terms of network’s requirements and performances to assign or attain goals. Networks are not a sudden creation in social structure, they are old forms of social organization but in the context of new technological paradigm, all such networks are now highly associated with new information and communication technologies (Castells, Network Society: From Knowledge to Policy 2005), which ultimately make the ties stronger, smoother, more active and dynamic among networks as a part of the network society. To Castells ‘the network society, in the simplest terms, is a social structure based on networks operated by information and communication technologies based in microelectronics and digital computer networks that generate, process, and distribute information on the basis of the knowledge accumulated in the nodes of the networks’ (Castells, Network Society: From Knowledge to Policy 2005, 7). He considered that three important inter-related consequences have led to emergence of global network society. They are (i) development and spread of microelectronics, which has made information and communication technologies possible, (ii) development of network economy and changing labour market (formation of new network companies and their dependency on highly qualified, flexible and independent workforces) and (iii) internal organizational structure of companies that has changed over the time as per demand of new networks. Castells argues that networks empowered by information communication technology are now the dominant force in society. Everything such as money, power, politics, communication, organizations and the society itself is produced and reproduced through such (communication, computer) networks.

Communication in the network society has dramatically been changed. A heavy digital communication network has been developed in society that goes beyond time, space and boundaries. The best example of this is online communities (computers and telecommunication networks). Castells (2005) addressed three major trends in the array of communication in network society. One, few corporations are controlling media businesses all over the world. They are regulating print media (press, publishing house), electronic media (television, radio, and audio-visual production), online commercial firm and music recording and distribution industry within different forms and partnership at local to global spot
depending on markets and products. Local and global communications therefore, have been generic and customized. Two, the communication system has become digitized and interactive, which is also diversified, flexible and inclusive in terms of managing content shared in social space. Communication dependency is moving from a mass media system to a customized and fragment multimedia system, and also with hypertext for integrated multiple contents from one source or more. Three, independent horizontal networks of interactive communication have evolved. Castells (2007, 246) argues that ‘the diffusion of Internet, mobile communication, digital media, and a variety of tools of social software have prompted the development of horizontal networks of interactive communication that connect local and global in a chosen time. The communication system of the industrial society was centered to the mass media, characterized by the mass distribution of a one-way message from one to many. The communication foundation of the network society is the global web of horizontal communication networks that include the multimodal exchange of interactive messages from many to many both synchronous and asynchronous’. These horizontal networks basically imply the rise of social media in the Internet world. The best example would be social networking sites, which allow individual or groups to create and share different contents to many without having any institutional set up of mass/media communication. To Castells, this is mass-self communication (Castells, Network Society: From Knowledge to Policy 2005). The following section will discuss little more about social networking sites and mass-self communication.

2.1.3. Social Networking Sites (SNSs) & Mass-self Communication

In line with the above discussion, it is seen that a variety of popular social networking sites (SNSs) have been emerged in the network society. SNSs are special kinds of software programme that enabled people to communicate in the web, usually for a personal purpose and mass participation in social and collective activities (Mustonen 2009). SNSs have transformed web content from corporate or personal controlled read only content (web 1.0) to community controlled user-generated content (web 2.0) in the Internet history, which has opened interactive platforms for users to create, share, modify and discuss digital web contents. Boyd & Ellison (2007) define social network sites as ‘web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system’. This definition presents a structural aspect of SNSs. However, the functional aspect of SNSs is communication (share
information, message, photos, hyperlinks, feedback, comment etc.) for social networking
namely (i) bounding: to form an online group meeting, (ii) tracking: the list of community
involvement in discussions, (iii) archiving: to maintain records for easy discussion, and (iv)
warranting: ensuring the identity of the participants (Feenberg and Bakardjieva 2003). Many
have also given other identical name of SNSs from functional aspect. For example, SNSs are
‘mediated social communities’ (Goodings, Locke and Brown 2007), ‘explicit representation
of the relationship between individuals and groups in the community’ (Finin, et al. 2005)
‘places where people with common interests or concern come together to meet people with
similar interests, express themselves and act’ (Weber 2009), ‘starting point, to discuss and
investigate a variety of related topics’ (Papacharissi and Mendelson 2010), ‘a valuable
marketing communications channel’ (Fraser and Dutta 2008). The most popular examples of
SNSs include facebook, MySpace, Bebo, Orkut, LinkedIn, Academia.edu, Hi5 etc.

The history of social networking sites is not so old. It was started with the social networking
site Sixdegrees, which allowed users to create profiles, list their friends, and add friends-of-
friends to their own lists (Boyd & Ellison, 2007). However, within a short span of time,
having varied and multiple features a diverse social networking sites has emerged from the
perspective of users’ need. For the general masses (e.g. Facebook, Friendster, Hi5 etc.), for
professional networks (e.g. LinkedIn), for videos and photos sharing (e.g. MySpace,
YouTube, and Flickr) and weblogs (blogs) are widely used social networking sites this time.
Most of them have some common features such as visible profile creating, meeting stranger,
leaving message on friends’ profiles, seeing others’ friends list and articulating own social
networks. However, many of the sites are distinct by scope, nature and functionality. Boyd &
Ellison (2007, 214) stated that ‘beyond profiles, friends, comments, and private messaging,
SNSs vary greatly in their features and user base. Some have photo-sharing or video-sharing
capabilities; others have built-in blogging and instant messaging technology. There are mobile
specific SNSs (e.g., Dodgeball), but some web-based SNSs also support limited mobile
interactions (e.g., Facebook, MySpace, and Cyworld). Many SNSs target people from specific
geographical regions or linguistic groups, although this does not always determine the site’s
constituency. Orkut, for example, was launched in the United States with an English-only
interface, but Portuguese-speaking Brazilians quickly became the dominant user group
(Kopytoff, 2004). 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’.
With this rise of social networking sites, it appears that intra-personal, interpersonal and group communication has been mass-self communication. Why is this mass-self communication? It is mass-self communication because ‘it reaches potentially a global audience through the p2p networks and Internet connection. It is multimodal, as the digitization of content and advanced social software, often based on open source that can be downloaded free, allows the reformatting of almost any content in almost any form, increasingly distributed via wireless networks. And it is self-generated in content, self-directed in emission, and self-selected in reception by many that communicate with many’ (Castells 2007). We are indeed in a new realm of mass-self communication. Email and facebook both are interactive medium, which are serving important role in this context from personal to social and more with global communication. Therefore, email and social networking sites have become a critical part of lives. Both personal and professional context, email and specially facebook rapidly changing ‘the public discourse in society and setting trends and agendas in topics that range from the environment and politics to technology and the entertainment industry’ (Asur and Huberman 2010). Scholars from the Internet, information and new media studies widely now engaged to examine social networking sites in order to understand from ‘practices, implications, culture, and meaning of the sites, as well as users’ engagement with them’ (ref) to contents, characteristics and impacts on individual to society and even more with businesses and social activism. The present study will see the nature of using facebook and email by the students within the lens of media uses and gratification and media richness theory. The theories are discussed in the following sections.

2.2. Uses & Gratification Theory

Uses & Gratification theory (U&G) is an approach that provides a user-oriented perspective on the relationship between people and media. For what reasons people use certain media and what are social and psychological motivations that work behind those reasons are two main approaches to U&G researchers. They believe that every people have some certain needs and people wish to fill those needs. People may fill those needs by using different mass or interpersonal communication channels. In this context, the researchers consider that people are active and goal oriented while choosing media for their gratification. In addition, if people do not satisfy themselves with certain media for their needs, then they will actively seek alternative media (Katz, Blumler and Gurevitch 1974). According to Rubin (2004), the
The current perspective of U&G research is directed to five major assumptions: (i) ‘communication behavior, including media selection and use, is goal-directed, purposive, and motivated’; (ii) ‘people take the initiative in selecting and using communication vehicles to satisfy felt needs or desires’; (iii) ‘a host of social and psychological factors mediate people’s communication behavior’; (iv) ‘media compete with other forms of communication (i.e., functional alternatives) for selection, attention, and use to gratify our needs or wants’; and (v) ‘people are typically more influential than the media in the relationship, but not always’ (Rubin 1994). The U&G has been applied to study the uses of variety of mass media and special programme or content of mass media. Examples include, soap operas, news programs, using the VCR, listening to talk radio, watching cable TV, channel surfing, magazine reading, tabloid reading, the Internet, reality TV and religious television (Papacharissi and Mendelson 2010).

The U&G is an early trend of media effects research started in 1940s. During the last several decades, U&G researchers have tried to refine their perspective to make it theoretically sound (Ruggiero 2000). However, many limitations have been addressed by the scholars. For example, Stanford (1983) has noticed that the approach has problems with the operational definition and the analytical model, they are confusing. Moreover, there are lacking in its internal consistency and theoretical justification. He complained that ‘the discussion ranges far from the results, which do not support their theoretical underpinnings’ (p. 247). Few more criticisms with regard to U&G includes (i) it is individualistic and underemphasizing the value of interaction (McQuail 1979) (ii) it relies on self-reporting to generate data from respondents, (ii) it is so simple about explaining the origin of audiences’ needs that bring them to the media (Katz 1987), (iii) it holds lacking of conceptual clarity on the concept of gratifications (Swanson 1977), (iv) it presupposes that audiences are active, which is not always the case (Lometti, Reeves and Bybee 1977) and (v) it often desists from the gap between desired and obtained gratifications (Ruggiero 2000).

Despite having such theoretical and methodological limitations, scholars such as Ruggiero (2000) considered that the emergence of the Internet and other new media would be restoration point of U&G approach. According to him, ‘uses and gratifications has always provided a cutting-edge theoretical approach in the initial stages of each new mass communications medium: newspapers, radio and television, and now the Internet’ (Ruggiero 2000, 3). He urged that the concepts with regard to new media such as interactivity,
asynchronicity (the storing of information for consumption at another point in time) along with the nature of audience need to be reassessed through U&G approach. Accordingly, some other scholars contend that the traditional model of U&G can serve a useful and productive framework for studying Internet use in this time. It is indeed, that the exposure pattern of many media users has changed due to the liberalization of communications industry, convergence of mass media and digital technology (Finn 1997). And ‘as new technologies present people with more and more media choices, motivation and satisfaction become even more crucial components of audience analysis’ (Ruggiero 2000). This idea is the theoretical departure of my thesis, which is designed to justify the using habits of facebook and email in line with U&G reasons.

Pool (1983) stated that U&G approach can work as the vanguard of quantitative and qualitative analysis of new media technologies, especially in the context of early stages of a media development and when making prediction about that media is difficult (Ruggiero 2000). In such case, (Kuehn 1994) suggested to use U&G in context of convenience, diversion, relationship development, and intellectual appeal for evaluating any computer-aided instructional programmes. Likewise, December (1996) suggested some categories to be considered for study peoples’ attitude toward new media consumption are surveillance, entertainment and diversion, interpersonal utility, and parasocial interaction. Addressing some other scholars (e.g., Rubin, 1994, Hardy and Scheufele, 2005; Kaye and Johnson, 2002, Dimmick, Chen and Li, 2004; De Waal, Schoenbach and Lauf, 2006, Papacharissi and Mendelson, 2010) have listed some of the current research with regard to new where the scholars have seen socio-psychological disposition of using the Internet to meet different goals, relations between online news and civic engagement, public opinion or political behavior, how individuals select or combine online and offline news sources and motives and types of Internet use. In this line, there are a notable number of U&G researches, which is based on most popular new media such as social networking sites (SNSs), Wikis and online video games. For example, uses, gratifications, and social capital on facebook (Papacharissi and Mendelson 2010), political uses and gratifications by SNSs (Ancu and Cozma 2009), dimensions of uses and gratifications of SNSs (e.g., Facebook, MySpace, Instant Messaging) (Dunne, Anne Lawlor and Rowley 2010; Bonds-Raacke and Raacke 2010, Quan-Haase and Young 2010, Smock, et al. 2011), gratification with regard to Wikis for enhancing teaching and learning outcome (Guo, Zhang and Stevens 2009), and Video Game Uses and Gratifications as Predictors of Use and Game Preference (Sherry and Lucas n.d.). In this line,
the most recent and relevant studies are done by Bonds-Raacke and Raacke. Using media uses and gratification theory they have identified the dimension of using MySpace and facebook from a comparative perspective (Bonds-Raacke and Raacke 2010). Similarly, Quan-Haase and Young have made a comparison between facebook and Instant Messaging (Quan-Haase and Young 2010).

2.3. Media Richness Theory

Media Richness theory (MRT) is designed to justify the richness of a media in terms of its capacity to process and convey appropriate messages. It is based on contingency theory and information processing theory (Galbraith 1977), and is developed by the organizational scientists Daft, Lengel, and Trevino (Daft and Lengel 1984). According to Daft and Lengel, the fitness of a media and the characteristics of communication task are the key factors for an efficient communication between people (Daft and Lengel 1986). In this context, a rich media should have the following four characteristics.

(i) Immediate feedback capacity: It refers to the speed and quality of the medium to facilitate instant feedback (synchronicity) and clarification of issues during communication.

(ii) Capacity to transmit multiple cues: It implies multiple physical (e.g., physical presence, voice inflections, body gestures etc.) and documental (e.g., words, and numbers, even graphic symbols etc.) communication cues facilitated by the medium.

(iii) Language variety: It means the capacity of medium to facilitate communication using both numbers and natural language. For instance, numbers and formulas are greater symbol of appropriation, however, natural language convey a wider set of concepts and ideas.

(iv) Capacity of the medium to have a personal focus: It refers to the ability of the medium to convey the personal feelings and emotions of communicators.

According to these characteristics, face-to-face communication is the richest form (for its ability to provide instant feedback, multiple cues through physical gestures and voice tone) in
the hierarchy followed by telephone, electronic mail, postal letter, note, memo, special report, and finally, flier and bulletin. The personal text document is the lowest medium as it provides only text message and table or figure, not immediate feedback or more cues.

On the other hand, from the characteristics of communication point, MRT considered that to increase the efficiency in communication, there is a need to reduce uncertainty and equivocality. The first one is associated with the lack of information and the later one is associated with negotiating meanings for ambiguous conditions. Therefore, a rich medium should be able to transmit adequate and appropriate information in order to reduce uncertainty and should be able to process rich information in order to reduce equivocality (Sun and Cheng 2007).

MRT had no scope to consider the context of new media as they were not introduced at the time of its development. However, many consider all new media (e.g., social media) have been retroactively fit into the MRT’s framework (El-Shinnawy and Markus 1992). And, many of recent studies have applied MRT in new media perspectives. For example, Lan and Sie have used MRT to analyze the capabilities of media richness among SMS, Email, and RSS in the proposed mobile-learning environment (Lan and Sie 2010).
3. Methodologies

The study was employed by both quantitative and qualitative approaches of research methodologies. Questionnaire survey and focus groups methods were done for the data collection. Quantitative study is very common and well-accepted method among social scientists for doing large-scale study on adoption of communications technologies (Howard, et al. 2009), especially questionnaire survey for getting data from a large scale of population. Moreover, questionnaire survey is a systemic and standard way of data collecting method from ‘individuals, households, organizations, or larger organized entities’ (Wright and Marsden 2010, 3), and this is one of the most important research methods in social science studies. In this study, the main reason behind using both of the research methods was to maximize the reliance of the study.

Focus group is a trustworthy method of data collection, which has been using by social scientists from a long ago. This method was basically inaugurated when the social scientists have been looking for an alternative method for qualitative study since traditional individual interview process was in question about its accuracy because of its predetermined questionnaire with closed-ended options. Focus group helps ‘to better understand how people feel and think about an issue, product, or service’ (Krueger and Casey 2000, 5). Through focus group discussions it is possible to get a clear and wide picture of people’s thoughts and concern about something and that helps to investigate an issue deeply. Usually, in this data collection method each group consists of six to eight members. The advantage of focus group is that participants can discuss something easily and sometimes they enjoy talking about their thoughts and viewpoints. They also get the opportunity to share whatever in their mind over a certain issue. Thus, it is possible to explore something with wide range of information from participants. But the procedure also has limitations. For instance, when a member expresses his or her perception there is a possibility of getting influenced by ideas and comments of other members of the group (Krueger and Casey 2000, 5).

Focus groups are also called group depth interviews; these are among the most broadly applied, and have become highly popular research methods in social sciences (Krueger and Casey 2000, 5). The very well known and early use of focus groups in social science was to investigate ‘the effects of media communication (e.g., radio broadcasts, government fundraising appeals, and World war 11 military training films) and the underlying factors that explained the relative effectiveness and persuasiveness of a particular communication’
Focus group has got a new stimulation in recent audience reception and media research (Lunt and Livingstone 1996).

Many researchers combine focus groups with other research methods, sometimes to help the primary method. For example, Focus groups sometimes combined with quantitative study to get preliminary data to develop survey questionnaire or sometimes to get support for weak survey result (Morgan 1997). In this study, the questionnaire survey was done to explore the dimensions of students’ facebook and email usages in their everyday communication, and to identify if there has been any changes in students’ communication pattern. And the focus groups were done mainly to explore students’ in-depth perceptions about facebook and email as tools for online communication. Especially, to get a better idea about how they use facebook and email, and how they explain the channels as part of their everyday communication media.

3.1. Area of Survey

This study was based on the students of Uppsala University. The students were chosen to conduct the study because students are considered as vast users of facebook, email is also a well accepted tool among students for online communication. This study was done on the students of Uppsala University because the University is well-known with a huge number of national and international students (around 40,000), and the University ranks among the world’s hundred best universities. Uppsala University is the oldest university in Sweden and considers as one of the prestigious university for higher education in Europe (source:http://www.uu.se/en/). Moreover, the university is located in a country that is rich in technology. Sweden is one of the most technologically rich countries, and in terms of Internet and social media users the country is holding a very good position. In Sweden, 84% people have a broadband connection, and facebook remains the most popular networking site with about 4 million facebook users (Gustafsson 2012), among the 9 million population of the country. According to a ranking by the International Telecommunication unit Sweden holds the number one position on ICT Development Index (Leckner and Facht 2010).

3.2. Motivation of Selecting the Media

Facebook and email are the wonderful innovations in the Internet age whereby people are inter-connected in the global network society. However, since the increasing acceptance of facebook there are some debates like if facebook is replacing email or students do not use
Synthia Binte Rahman

email so much now a days. In online world, facebook emerged as a social media and now remains as the most used networking site, and getting popular for different communications purposes. As I have discussed in the background section, facebook is considered as the most popular online social networking site among students. According to some online social networks researchers, ‘understanding why students use online social networking sites is crucial for the academic community, as this new communication platform exhibits important impact on student motivation to learn, affective learning, and classroom climate’ (Mazer, Murphy and Simonds 2007 in Cheung, Chiu and Lee 2011). However, in this study, I am intended to see how the students’ are treating email, the old online communication channel, besides facebook. As a traditional online communication tool, email was also very popular among students’. Thus, I have selected facebook and email, to explore how the students are treating these two communication forms, and if facebook led to make any change in students’ communications pattern. Actually, when a new media diffused this is a very common tendency of human nature that the old media got affected. For instance, if we look back to the peoples’ media using habit we will find how they accept new form of communications technologies, like TNT phone then mobile phone then instant messaging. Therefore, I have chosen facebook and email from a comparative perspective of students’ media using pattern.

3.3. Data collection procedure

3.3.1. Questionnaire Survey

A paper based and an online survey were done over the students of Uppsala university. The online survey was done using an online survey facilitator (groupsurvey.com), questionnaire was sent to 225 students randomly via email and facebook. Among them 90 (40%) were returned with complete responses. Moreover, 235 responses were received from a random paper based survey, but 4 responses were rejected due to several errors. Thus, finally the total respondents were 321. More detail information about the paper based and online survey procedure will be described in the further sections.

The data were collected through a simple random survey. Students from different departments, level and categories, such as- bachelor, master, PhD, part time, full time were included in the sample size. The simple random sampling method was chosen as the study was conducting on a large population, and within this sampling method every member of the total population has the equal chance to be surveyed. This sampling method is considered as
“standard’’ among other commonly used sampling methods, e.g. systematic sampling, and sampling with probability proportional to size (Piazza 2010).

Data were collected using both online and a paper-based questionnaire survey with a same questionnaire for both modes. The benefits of using such mixed mode surveys were to get enough “coverage’’ and “response’’, in other word to attain high response rate. For example, If I would have done only a online survey it would be difficult to reach enough respondents and to collect sufficient questionnaires, even though conducting only a online survey is not that cost effective and time consuming as paper-based questionnaire is. That’s why it was effective to use mixed method of data collection, moreover, recommended by scholars, to conduct Internet survey along with other cost effective modes (Dillman and Messer 2010).

3.3.2. Questionnaire Design

Keeping the objectives of the study in mind, the questionnaires were made of a set of 19 questions (First two questions did not have any number: asked about ‘gender’ and ‘age’), among the total questions 9 questions had two parts, e.g. 5a and 5b. The first part of the questionnaire was to know the students demographic information, e.g. gender and age. This part was not included in the numbered questions. Then there were some questions to know some general information about both the students’ media use. Like, how many accounts do the students have on facebook and email, and for how long time the students’ have been using the both media. Then there were some questions to investigate students’ current media habits. For instance, when they want to share photos with friends, which medium do they use most often? , with which medium they spend most time. A part of the questions were to understand if there were any changes in students’ communications pattern and media habits. Such as, what media did they use last year to communicate with their family or friends, and what they use now? There were two open-ended questions (Question no. 7 and 8) in the questionnaire those were dealing with finding the reasons for using the media, facebook and email. A segment of the questions were to understand about the media students’ tend to use most frequently through their daily life technology, like what medium the students check frequently via their smart phones? The students were also asked some additional questions, like if they add their teachers on facebook, if they think facebook can serve all the purposes of email etc.
3.3.3. Online Survey

The online survey was done using an online based survey service provider (groupsurvey.com). The survey questionnaires were sent to 225 respondents with a short note via facebook message and email; the online data were collected for two months. The questionnaires were sent to the students of Uppsala University who are on my contacts list on facebook, and also to students whose email address I knew, some of them were studying at my department, some I got to manage from friends, some from my thesis advisor. I have also requested participants to spread out the questionnaire to their contacts who are students of Uppsala University. The online survey facilitator I used was built in a way that I had to send the questionnaire to each of the respondents individually to avoid the risk of getting double response from same respondent or same server. To some of my contacts on facebook, I sent a reminder message to fill out the questionnaire. Finally, I have received 90 complete responses from the online survey.

3.3.4. Offline Survey

Paper-based questionnaires were distributed among the students at different places of Uppsala University. For example, I have been to several campuses to distribute the questionnaires: Ekonomikum, Engliska parken, Blåsenhus, BMC, Cimus centre. The questionnaires were also distributed among the participants at the university student union. The reason behind choosing different places was to get students or participants from different departments and with mixed academic background. The questionnaires were distributed on spot, and the participants immediately returned the questionnaires with their responses. At the campuses, the questionnaires were distributed randomly to the students who were in a lecture break or doing group work or just moving around. Most of the participants responded to the questionnaires happily except a few who denied because of their tight schedule. A total of 235 questionnaires were collected with responses from the participants, among them 4 were rejected because of some errors.

3.4. Survey Data Analysis Procedure

Obtained raw data from the closed-ended questions of the questionnaires survey was gathered on MS Excel (Microsoft Excel 2003) to analyze. Countif option of MS Excel was then used to calculate frequencies and percentages of the data. The data from the open ended questions were also gathered on the Excel spreadsheet, and then the data were coded and categorized
manually. Finally, frequency and percentage of the main themes were calculated.

For the comparative questions, a paired-samples t-test was conducted with 95% confidence interval to see the significant difference between the trends of students’ facebok and email usage currently and two years ago, and thus to compare if there are any changes in communication pattern in relation to the communication media, facebook and email. The t-test was done by using statistical analysis software ‘Minitab 16’. The test was done on 6 questions (Q. 5a+5b, Q. 6a+6b, Q. 10a+10b, Q.12a+12b, Q.13a+13b, and Q.17a+17b) in the questionnaire. There were 9 questions in the questionnaires that had two sections, one question dealt to explore participants present media (facebook/email) using habit and other part was to know their previous (two years back) media (facebook/email) using tendency for different communication purposes. But the significant test was carried out on 6 of them, other 3 comparative questions (Q. 11a+11b, Q. 14a+14b, and Q. 15a+15b) were exempted from the t-test because the results of those questions were highly a single media directed, thus it was very clear to understand the significant difference without doing the test. For doing the statistical test, the choices of the questions (a.email b. facebook c. both equally much) were given two code numbers: ‘1’ for the response of each option and ‘0’ for the non response of each option.

3.5. Focus Groups

The aim of the focus groups was to know the students perception over the communication medium e.g facebook and email in-depth. In the focus groups discussion, 16 students of Uppsala Univesity were participated in four different groups. Each group was consisted of four members. The participants were selected from different academic background, and a combination of male, female, and national, international students. For example, there were 6 male and 10 female from different countries, like Sweden, China, USA, Bangladesh, Germany, Franch, Slovakia, Ireland and they were studying Peace and Conflict, Media and Communication, Business, Chemistry etc. All of the participants were current students, studying masters, one doing Phd at the Uppsala University. The participants of the focus groups were chosen according to a convenience selection process. Some known students, and also unknown students (who were called through friends) were invited to attend in the focus groups discussions. The discussions were lasted for about 30 minutes. I was working as a moderator of the focus groups discussion, and I also recorded the whole discussion with a
smart phone. The participants were offered some snacks and drinks for their time and participation in the focus groups.

All the four groups were focused on the same basic discussions topic for the sake of balanced and successful result towards the purpose of the study. While conducting the focus groups Richard A. Krueger’s guiding principles were maintained (Krueger 1998). Krueger has suggested some foundation principles of asking questions in focus groups. These focus groups have been conducted by keeping the following principles in mind:

Conversational-conversational-conversational: The focus groups were done in a conversational manner to keep the environment informal. The discussions were started with a short background of the study. I, as a moderator, added several stimulus points time to time during the discussions process. For example, ‘several study shows facebook is increasingly being used in academic purposes, like many students are making facebook groups for their academic discussions and study programmes. What do you say about this feature?’ Participants’ perception about email also investigated and compared with facebook during the discussions. The focus groups were carried out more with a conversational style rather than just asking direct questions frequently.

Be clear or maintaining clarity: Maintaining the clarity of the questions was one of the main concerns during the discussions process. A stimuli with each discussion question makes it easier to involve the participants attention towards the point. For instance, ‘facebook has more than 900million active users among 700billion people of the whole world; you are one among this huge facebook community. How do you see facebook as a communication channel?’ In some points examples also provided when it was needed to make the question easily understood and clearer. One of the questions was ‘what do you think about the options “updating status” or writing someone’s “wall” on facebook? Like when a friend of you writes something on your wall, your other friends can also see what your friend has written, may be a birthday wish or asking if you are joining the party tonight. Then, the communication between you and your friend will no longer be private; so what would you say about using the options writing on wall and updating status?

Seeking help: The primary layout of the focus group discussions were discussed with my thesis supervisor, and also checked with my fellow mates to ensure an effective focus groups discussions.
Allowing sufficient time: The preparation for the focus groups was not a quick process rather it has given enough time to make the group discussions successful. And the first focus group was very helpful to conduct the rest two groups easily and to recover some minor errors in the discussions plan and to add some points that probably I missed in the first group discussion.

3.5.1. Focus Groups Data Analysis Procedure

Focus groups data were analysed by following five stages of framework analysis: familiarization of the data; identifying a thematic framework; indexing; charting; mapping and interpretation (Ritchie and Spencer 1994). As a part of the analysis procedure, at first all the recorded discussions of the focus groups were transcribed. Then, the short phrases and ideas were noted on the transcribed data to get several categories. Then, the data were coded by highlighting and sorting out similar trend, and the coded data were re-arranged based on the categories. Finally, the interpretation step was done by finding big pictures from the categorized theme.
4. Results and Analysis

4.1. Findings from the Questionnaire Survey

Findings from the questionnaires will be described in this chapter. The findings will be written according to the questions order in the questionnaire; however the result from the open-ended questions (question number 7 and 8) will be described in the next section followed by the closed-ended questions.

The mean age of the respondents (N=321) was 23. The students who attended in the questionnaire survey 296 (92%) mentioned their gender. Among them 157 (53%) were female and 139 (47%) were male. See chart (gender distribution) on appendix A.

4.1.1. Findings from the Closed-ended Questions

The first question in the questionnaire was ‘How many accounts do you have on facebook?’. The respondents had three options to answer this question: a. One b. two c. three or more. The question had 100% response rate. Among them 93% respondents had one, 5% had two and 1% had two or more account on facebook. See chart2 on appendix A.

Then the students were asked ‘How many different email accounts do you have?’; the options for this question were same as in the previous question: a. One b. two c. three or more. This question also had 100% response rate. Among the respondents 46% had two, 43% had three or more, and 12% had one email accounts. See chart3 on appendix A.

The question number three and four were ‘For how long time (apprx.) have you been a user of facebook?’ and ‘For how long time (apprx.) have you been using email?’; the respondents were given the four options for both of the questions: a) 6 months b)1 year c) 2 years d) 3 years or more. The response rate of this question was 99%. 72% of the respondents said they have been using facebook for 3 years or more, 19% were using facebook for two years, 5% were using for one year, and participants who were using facebook for 6 months were 3%. See chart 4 on appendix A.

All of the participants (n=321) responded that they has been using email for three years or more. See chart 5 on appendix A.

Question number five had two sections, 5a. asked ‘For personal communication, which tool do you use most frequently?’ and 5b. asked ‘Two years ago, which tool do you use most
frequently for personal communication?’ The respondents could choose among: a) email b) facebook c) both equally much. The response rate of this question was 100%. Among the respondents 53% use facebook for personal communication, 27% use both (facebook and email) equally much and 20% said they use email. When answering their preferred media for personal communication two years ago, 51% of the respondents said facebook, 33% said email, and 16% said they used both equally much. The answers of this question were received from 99% of the respondents. See chart 11 on appendix A.

The question number six also had two parts. The participants were asked ‘When you wake up in the morning which medium do you check first?’ and ‘Two years ago, when you wake up in the morning which medium did you check first?’ The options that the respondents could choose were same as in the above question. The response rates for question no 6a. was 99%, and 98% for 6b. Among the respondents 40% said they check facebook first when they wake up in the morning, 31% check email first, and 29% check both equally much. But two years ago, the respondents who checked email first was 47%, 36% said they did facebook, and 16% responded that they checked both equally much. See chart 12 on appendix A.

The respondents were asked ‘Do you think that facebook can serve all the purposes that email does?’ (question number 9). Respondents were given multiple choices to answer this question: a. Yes b. No c. Do not know. 99% of the participants responded to this question. Among them 74% said ‘no’, 19% ‘yes’, and 7% said they ‘do not know’ if facebook can serve all the purposes that email does. See chart 7 on appendix A.

The respondents were asked ‘When you want to share photos with friends, which medium do you use most often?’ (question number 10a.), and following this question they were asked ‘Two years ago, when you want to share photos with friends, which medium did you use most often?’ (question number 10b). For both of the questions the respondents were given three choices: a. email b. facebook c. both equally much. The response rate for both of the questions was 96%. Among the respondents 86% of them use facebook most often to share photos with their friends. 8% of the respondents use email and 6% use both equally much in this purpose. When answering their preferred medium two years ago to share photos with friends, 72% responded facebook as their most often used medium. 22% of the respondents marked email, and 6% marked they used both equally much for sharing photos with friends. See chart 13 on appendix A.
There were two questions asking ‘When you want to attach Pdf files, which medium do you use most often?’ (question number 11a) and ‘Two years ago, When you wanted to attach Pdf files, which medium did you use most often?’ (question number 11b). The choices that were given for both of the questions were same as the above questions. 99% of the respondents answered both of the questions. The respondents who said they use email most often to attach pdf files were 97%, and 2% said they use facebook, and 2% use both equally much to attach pdf files. Two years ago, 96% of the respondents used email most often to attach pdf files, facebook was used by 2%, and 3% used both equally much for this purpose. See chart 14 on appendix A.

There were two questions that lead to know the respondents preferred media for communicating with friends. The questions were ‘For communicating with friends, which tool do you use most often?’ (question number 12a) and ‘Two years ago, which tool did you use most often For communicating with friends?’(question number 12b). The respondents had three choices to answer these questions: a.email b. facebook c. both equally much. All of the respondents answered the first question, and 99% respondents answered the second question. For communicating with friends 84% use facebook, 11% said they use both equally much, and 5% answered email as a medium for communicating friends. Two years ago, 73% of the respondents used facebook, 16% used email, and 10% used both of the medium equally much for connecting their friends. See chart 15 on appendix A.

**Figure:1 (Based on Q5.10.12.17.)**
Following the questions to know about respondents preferred media for communicating with their friends now and two years ago, question number 13a and 13b intended to know their present and two years back media preference for communicating with their family. The questions were ‘For communicating with family, which tool do use most often?’ and ‘Two years ago, which tool did you use most often for communicating with family?’; The given choices to answer both of these questions were a. email b. facebook c. both equally much. 92% of the participants responded to the first question (13a), and the second question (13b) received response from 95% participants. Among the respondents, 46% use email, 35% use facebook, and 19% said they use both equally much for communicating with their family. On the other hand, 59% of the respondents used email for communicating with their family two years ago, 26% used facebook, and 15% used both equally much for this communication purpose. See chart 16 on appendix A.

The participants were then asked ‘For communicating with teachers, which tool do use most often?’ (question number 14a) and ‘Two years ago, which tool did you use For communicating with teachers?’ (question number 14b). The options were same as previous: a. email b. facebook c. both equally much. Between the two questions, the response rate for the first question was 100%, and 98% people answered the second question. For communicating with teachers, 98% responded they use email most often. 1% use facebook, and 1% use both equally much. Two years ago, for communicating with teachers 97% replied they used email, 1% used facebook, and 2% used both equally much. See chart 17 on appendix A.
The questions 15a and 15b were dealing with respondents media choice to communicate with an organization or an employer; the questions were ‘For communicating with an organization or an employer, which tool do you use most often?’ and ‘Two years ago, which tool did you use most often for communicating with an organization or an employer?’. The participants had to choose among a. email b. facebook c. both equally much. Among the total participants 99% of them responded to both of the questions. 96% of them said the most often using tool for communicating with an organization or en employer is email. 1% participants use facebook, and 3% responded they use both equally much. For this communication Two years ago 97% used email, 3% used both equally much, but no one (0%) used facebook. See chart 18 on appendix A.

The participants were also asked ‘Do you accept teachers as your friends on facebook?’ (Question number 16). They were given three choices to answer this question: a. yes b. no c. it depends. 99% of the respondents responded to this question. Among them 45% said it depends, it was a no for 33%, and 23% said yes they do accept their teachers as friends on facebook. See chart 8 on appendix A.

The respondents were asked ‘Which tool do you spend most time with?’ (question number 17a) and ‘Two years ago, which tool did you spend most time with?’ (question number 17b). There were three options to choose: a. email b. facebook c. both equally much. All of the...
participants responded to 17a, and 99% responded to 17b. Among the respondents 75% spend most time with facebook. The participants who spend most time with email were 9%, and 16% spend most time with both equally much. But Two years ago 63% participants spent most time with facebook. 22% responded email, and 15% responded both equally much. See chart 19 on appendix A.

The question number 18 intended to find if the participants have bookmarked any media on their personal computer. The question they were asked was ‘Have you bookmarked any of the following medium in your personal computer?’ The respondents could select among a. facebook b. email c. both. The response rate for this question was 78%. Among the participants who responded this question 78% bookmarked both the media, 12% bookmarked facebook, and 10% bookmarked email in their personal computer. See chart 9 on appendix A.

The last question for the respondents was ‘If you are a smart phone user, which medium of communication do you check frequently via the smart phone?’ (question number 19). Three choices were offered to answer this question: a. email b. facebook c. both equally much. 77% of the participants responded to this question. Among the respondents 51% of them most frequently check both of the media equally much. 35% check facebook frequently and 14% do check email via their smart phone. See chart 10 on appendix A.

**T-test result**

A paired sample t-test was done with 95% confidence interval to do significance test between the comparative questions in the questionnaire.

**Q. 5a and 5b**

A paired-sample t-test that compared email for personal communication now and two years back showed that there was a significant difference between the number of respondents use email now (M=0.197; SD=0.398 ) and the number of respondents used email two years ago (M=0.330; SD=0.471) for personal communication; t(617)= -3.86, P=0.000. This result indicates that for personal communication the use of email decreases significantly.

The t-test that compared facebook for personal communication now and two years back reveals that there was no significant difference between the number of respondents use facebook now (M=0.534; SD=0.500) and the number of respondents used facebook two years ago (M=0.513; SD=0.501) for personal communication; t(635)=0.55, p=0.582. That means
there is no change noticed between how people use facebook now and how they did two years ago for personal communication, participants use facebook for personal communication the same way they did earlier.

A test that compared the difference between the respondents that use the both media ‘both equally much’ for personal communication now and two years ago found a significant difference between the number of respondents use the media both equally much now (M=0.269; SD=0.444) and two years ago (M=0.157;SD=0.365) for personal communication, t(614)=3.47, p=0.001. This result reveals that there was significance difference between the tendencies of using both the media equally much earlier and now. That is in terms of personal communication tendency of using both the media equally increases.

Q. 6a and 6b

The t-test compared the number of respondents who check email first when they wake up in the morning and the number of respondents who checked email first when they woke up in the morning two years ago. There was a significant difference between the number of respondents check email first (M=0.310;SD=0.463) when they wake up in the morning and the number of respondents (M=0.475;SD=0.500) who checked email first when they woke up in the morning two years ago, t(628)=−4.30, p=0.000. This result indicates that the users of email who check email first when they wake up in the morning decreases significantly.

The t-test that compared the respondents who check facebook first when they wake up in the morning and the respondents who checked facebook first when they woke up in the morning two years ago found no significant difference between the number of respondents who check facebook first (M=0.404;SD=0.491) when they wake up in the morning in present days and the respondents who checked facebook first two years ago (M=0.361;SD=0.481) when they woke up in the morning, t(632)=1.13,p=0.258. This result reveals there is no big change observed that how many respondents used to check facebook first when they wake up in the morning in present days and the same habit two years ago.

The comparison between checking both the media equally much when the respondents wake up in the morning the first media they check now and the same habit two years ago showed that there is a significant difference between the number of respondents (M=0.285;SD=0.452) who first check both the media equally much when they wake up in the morning now a days
and the number of respondents (M=0.165; SD=0.371) who first checked both the media equally much two years ago, t(612)=3.68, p=0.000. This result shows that the number of respondents who first check both the media equally much when they wake up in the morning increases.

Q. 10a and 10b

A t-test was done to see the difference between the number of respondents who use email when they want to share photos with friends and the number of respondents who used email two years ago when they wanted to share photos with friends. There was significant difference between the number of users (M=0.081; SD=0.274) who use email to share photos with friends now and the number of users (M=0.225; SD=0.418) who used email two years ago when they wanted to share photos with friends; t (527= -5.02), p=0.000. The result discloses that the number of respondents who used email to share photos with friends’ two years ago decreased significantly.

The t-test that was done to compare the difference between the number of respondents (M=0.857; SD=0.351) who use facebook to share photos with friends and the number of respondents (M=0.720; SD=0.450) who used facebook two years ago when they wanted to share photos with friends found a significant difference between the number of users now and two years ago; t(577)=4.20, p=0.000. This result indicates that to share photos with friends’ use of facebook increases significantly.

The result from the t-test that compared the number of respondents (M=0.062; SD=0.241) who use both the media equally much to share photos with friends and the number of respondents (M=0.055; SD=0.229) who used both of the media equally much two years ago for the same purpose showed no significant difference between the user numbers; t (610)=0.34, p=0.732. This result shows that there was no changes occurred between the numbers of users who use both the media equally much to share photos with friends now and earlier.

Q. 12a and 12b

A t-test was done to compare the number of respondents who use email for communicating with friends and the number of respondents who used email to communicate with friends two
years ago. There was a significant difference between the number of respondents (M=0.047; SD=0.164) who use email for communicating with friends now and the number of respondents (M=0.164; SD=0.371) who used email two years ago to communicate with friends; $t(434)=-5.15$, $p=0.000$. This result indicates that for communicating with friends the use of email decreases significantly.

The comparison between the number of respondents (M=0.844; SD=0.364) who use facebook for communicating with friends now and the number of respondents (M=0.732; SD=0.444) who used facebook two years ago for communicating with friends showed a significant difference; $t(609)=3.48$, $p=0.001$. This result reveals that the use of facebook for communicating with friends increases significantly compare to previous years.

When the t-test was done to see if there is difference between number of respondents (M=0.109;SD=0.313) who use both the media equally much to communicate with friends and the number of respondents (M=0.104; SD=0.306) who used both the media equally much for communicating with friends two years ago, there was no significant difference between these two catagories; $t(634)=0.22$, $p=0.830$. This result suggests that there was no significant change occurred between the numbers of users who use both the media equally much for communicating with friends now and who used two years ago.

**Q13a and 13b**

A t-test was conducted to compare between the amount of users (M=0.458; SD=0.499) who use email for communicating with family now and the amount of users (M=0.587; SD=0.493) who used email for communicating with family two years ago. There was a significant difference between these two; $t(596)=-3.19$, $p=0.001$. This result indicates that the number of users who use email for communicating with family decreases significantly compare to the users who used email for communicating with family two years ago.

The result from the t-test of comparison between the amount of users (M=0.353; SD=0.479) who use facebook for communicating with family now and the amount of users(M=0.259; SD=0.439) who used facebook for communicating with family two years ago showed that there was a significant difference between these two categories; $t(589)=2.49$, $p=0.013$. This result discloses that there was a significant difference between the amount of users who use facebook for communicating with family now and who used two years ago, which means the number of users who use facebook for communicating with family increases significantly.
The comparison result between the number of respondents (M=0.190; SD=0.393) who use both the media equally much to communicate with family now and the number of respondents (M=0.154; SD=0.362) who used both the media equally much two years ago showed that there was no significant difference between these two amounts of respondents, t(590)=1.16, p=0.247. This result indicates that no significant changes happened between the users who use both the media equally much for communicating with family now and two years ago.

**Q17a and 17b**

The t-test result of the comparison between the number of respondents (M=0.087; SD=0.283) who spend most time with email now and the number of respondents (M=0.223; SD=0.417) who spent most time with email two years ago showed a significant difference, t(557)=-4.81, p=0.000. This result indicates that the number of respondents who spent most time with email two years ago decreases significantly.

A test that was done to compare the difference between the number of respondents (M=0.753; SD=0.432) who spend most time with facebook now and the number of respondents (M=0.632; SD=0.483) who spent most time with facebook two years ago. There was a significant difference between the users now and two years ago; t(627)=3.34, p=0.001. This result shows that the number of users who spend most time with facebook increases significantly compare to the users who spent two years ago.

The result from the comparison between the number of respondents (M=0.159; SD=0.367) who spend most time with both the media equally much now and the number of respondents (M=0.148; SD=0.355) who spent most time with both the media equally much two years ago showed no significant difference; t(635)=0.40, p=0.686. This result reveals that there was no significant difference between the respondents who spend most time with both the media equally much now and the respondents who spent two years back.

**4.1.2. Findings from the Open-ended Questions**

**4.1.2.1 Reasons for Using Facebook and Email**

There were two open-ended questions (Question no. 7 and 8) in the questionnaire that were dealing to find the reasons for using the media, facebook and email. The respondents were asked ‘Generally for what reasons do you use facebook?’ (Q. 7) and ‘Generally for what
reasons do you use email?’ (Q.8). 99% of the participants answered the first question, and response rate for the second question was 98%.

Table.1 (Based on Q 7)

<table>
<thead>
<tr>
<th>Reasons for using facebook</th>
<th>% of Respondent s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events (creating/seeing/joining) and meetings (set up)</td>
<td>19</td>
</tr>
<tr>
<td>Communicating friends (connecting and keep in touch)</td>
<td>62</td>
</tr>
<tr>
<td>Photos (sending/checking/seeing)</td>
<td>11</td>
</tr>
<tr>
<td>General communication and interaction(personal/informal/group/academic/work)</td>
<td>14</td>
</tr>
<tr>
<td>Easy to reach many</td>
<td>6</td>
</tr>
<tr>
<td>Social Interaction/ Networking</td>
<td>8</td>
</tr>
<tr>
<td>Fun/ entertainment/relaxing</td>
<td>6</td>
</tr>
<tr>
<td>Friends/everybody else use it</td>
<td>3</td>
</tr>
<tr>
<td>Communicating family/relatives</td>
<td>6</td>
</tr>
<tr>
<td>News/Information/various updates (ex. Updates from own country)</td>
<td>7</td>
</tr>
<tr>
<td>Finding old friends/relatives</td>
<td>2</td>
</tr>
<tr>
<td>Communicating classmates(old/present)</td>
<td>2</td>
</tr>
<tr>
<td>Chat/messaging</td>
<td>5</td>
</tr>
<tr>
<td>Connect people/friends abroad</td>
<td>7</td>
</tr>
<tr>
<td>Spy/stalk/flirt</td>
<td>3</td>
</tr>
<tr>
<td>See what others are doing</td>
<td>5</td>
</tr>
</tbody>
</table>
Responding to the reasons for what the participants use Facebook, more than half of the respondents mentioned for communicating with friends. It was the most mentioned reason for using Facebook. The most talked reason included connecting and keep in touch with friends around the world, friends who are not living in the same city, connecting old friends, and seeing pictures of friends. The following responses are few examples from the participants that indicate this theme:

“Facebook has been evolved as an essential means of communication and to be precise, I usually stay in touch with my friends through Facebook”

“It's a tool for keeping in touch with friends”

“Facebook enables easy chat and gives updates about friends’ lives! It has also helped me reunite with a few friends I had lost contact with since high school. Virtually no other network has done this for me”

“To keep in touch with friends and to invite friends to different events, sometimes school work (mostly group work as well)”

“It's a community site, and I have my friends there, which means much because I do not live in my home town”

“To be updated about news and my friends, events, also it is easy to set appointments with friends”

“Mostly to chat with my friends and see their some new uploaded pix”

“It's a good way to keep in touch with friends who live abroad, people I would not otherwise have been able to stay in touch with”

“To keep contact with friends from home or who I meet during travelling”
“To communicate with friends that do not live in the same city and to let people know what i am doing in life (status updates)”

“To communicate with my friend and relatives, and to easily contact with my friend and when we hang it's easier to write on facebook. And also for flirt.”

“It is a good place to communicate with old friends and also knows about the other people ideas and get more information and some news”

“To keep in touch with friends, both the ones i do not see daily and the ones i do”

“To connect with old friends, to learn what my friends are doing, how they are doing, where they are etc. for nearby friends to see their schedule for cafe, party or any other event. The rest is bla bla bla…”

“More information shared, more interactive, all the friends in one place”

“To keep in contact with friends from the past, but also to communicate with my new friends.”

“Keep in touch with long distant friends”

Mentioning the reasons for using facebook, some respondents spoke about creating, seeing, or joining events and setting up meetings. This is one of the main reasons for what the participants use the medium.

“All pub events and such are first written on facebook, if you don't have it you miss a lot.”

“To get invited to events, see some photos sometimes, to communicate with multiple persons on threads”

“To get information about events, to comment/look at pictures, keep contact with people”

“To wish people happy birthday, to be updated about events”

“Attending events check up on people. Chat, look at pictures”

Sharing photos were one among the reasons mentioned by some respondents. Sending, checking or seeing photos were one of the reasons for using the media. Among the
participants who mentioned the main reason for using facebook is for communicating with friends, some of them also mentioned about sharing photos on facebook.

“Instant communication, pictures sharing”

“Discussing, sharing, thoughts, articles, photos, pictures”

“Fun, updates, know what is happening in my friends life...seeing new pictures and refresh mood”

General communication and interaction was a reason to some respondents for using facebook. Besides just saying communication in general some of the respondents raised matters like for personal/informal/group/academic/work communication they use facebook.

“To communicate with my study+ friends, about school and life in Uppsala”

“Communicating, and to see what other people are up to”

“To keep in touch with friends and to invite friends to different events, sometimes school work (mostly group work as well)”

“For personal communication, to have contact with my friends”

“Promote myself as a private person in the public sphere and promote different projects that i am involved in, such as music, videogames and school”

“Communication, sharing videos, music etc. and to follow my friends”

Few respondents use facebook because of its easiness. And few mentioned for them it is fun, entertainment or relaxing. Few respondents get news, Information or various updates (ex. Updates from own country) through the media, and for few just because of social Interaction or networking. The following comments from the respondents are few examples that reflect these reasons for using facebook.

“I use it in order to get more in touch with my former friend from my country and getting some updated information for what happen in my country now”

“To check what other people do and when i am bored, to get in contact with, to see what events are coming up. Connecting friends”

“It is very easy and convenient to use facebook to keep contacts with friends”
“To easily get in contact with my friends in a rapid way”

“It’s simple, easy to keep in touch with friends”

“Easy to stay in touch with friends whereever they are”

“Everyone is already on it. Fast and simple communication”

“Fun, updates, know what is happening in my friends life…seeing new pics n refresh mood”

“Social networking, discover lost friends, for fun”

“Networking with friends. Keep myself updated of my network”

A few participants use facebook for communicating family and relatives. And a small number of respondents reported that they use facebook because their friends and everybody else use it.

“Keep in touch with my friends and family, keep track of what happens in the rest of the world among the people i know”

“Family connection and post up pics so friends and relatives can see”

“All my friends who i am in contact with, use it”

“Many of my friends have and so as to be well informed about my country is the faster way to be updated”

“Because my whole family and all my friends started to use it, and my mother also, therefore i felt obliged to start using it”

“All my friends are there. I have them all over the world so it's a good platform”

While there were various reasons came forward for what the respondents use the media, a very few mentioned about spy/stalk/flirt.

“To stay updated about my friends' activities, to 'spy' a little on people i do not know very well, to communicate with friends”

“Communication, entertainment, stalking”
“For updates, easy to contact with friends, spy on people”

**Table.2 (Based on Q.8)**

<table>
<thead>
<tr>
<th>Reasons for using email</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact work/job/ Professional contacts (e.g official, business)</td>
<td>49</td>
</tr>
<tr>
<td>Contact school (e.g study, professors)</td>
<td>36</td>
</tr>
<tr>
<td>Important or general info (e.g job, offers, stores, restaurants’, different websites, register accounts, tickets)</td>
<td>12</td>
</tr>
<tr>
<td>Communication in general</td>
<td>14</td>
</tr>
<tr>
<td>To send files/documents</td>
<td>4</td>
</tr>
<tr>
<td>Serious/more important communication</td>
<td>8</td>
</tr>
<tr>
<td>Contact friends</td>
<td>8</td>
</tr>
<tr>
<td>More formal</td>
<td>9</td>
</tr>
<tr>
<td>Personal/private communication</td>
<td>3</td>
</tr>
<tr>
<td>Check info and apply for jobs or internship</td>
<td>6</td>
</tr>
<tr>
<td>Communicating family</td>
<td>3</td>
</tr>
<tr>
<td>Communicating people who are not on facebook</td>
<td>2</td>
</tr>
<tr>
<td>More private than facebook</td>
<td>1</td>
</tr>
<tr>
<td>Just to check emails</td>
<td>1</td>
</tr>
<tr>
<td>To send pictures</td>
<td>1</td>
</tr>
<tr>
<td>Easy</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total: 100% because of multiple answers</strong></td>
<td></td>
</tr>
</tbody>
</table>

Base: All participants who responded

N=313

Note: The total percentages of the respondents on table.2 are 158% because many of the respondents mentioned several reasons for what they use the communication tool.
While talking about the reasons for using email, one of the main reasons that came up was to contact work or job, and other Professional contacts, like official or business. About half of the respondents spoke about this reason and this was the most mentioned reason for using the medium. Some comments from the respondents are given here that illustrate this cause.

“Lots of things: send and receive documents, official work communication, for educational communication- with professors, scholarship search, internship etc. use it for formal as well as high privacy message exchange”

“Email is a lot more formal. Works with people who do not have a facebook or problem that i have a professional relationship. Facebook is more personal”

“Especially for official purposes and sending messages to them, who are not frequently in facebook”

“To communicate with people on a more professional level, i.e teachers, work associates and so on”

“Communicate more formally with people i do not know that well, e.g. Companies and employers”

“Important official contact or to him who does not have facebook account”

“For contact with people and organizations that i have to contact with them and i think it is more useful than mail by post. It's free also and cheaper and as high tech it is a good system for communication”

“For more important matters, such as work and school, but also to talk to my mom, who does not use facebook”

“Work, more formal forms of communications and talk to people that i do not talk with as often”

Contacting school, such as for study purpose and communicating with professors was also appeared as another reason for using email mentioned by many participants. The following comments are the instances that highlight this reason.

“For more professional matters like work and school”
“Contact teachers or classmates about study, contact friends who do not use facebook, receive subscription”

“For informational reasons, more professional situations like emailing a teacher or someone at my job”

Some respondents mentioned they use email for important or general info (e.g job, offers, stores, restaurants, different websites, register accounts, tickets).

“If someone has to send me something important i usually give them my e-mail address”

“To sign up for online services, and more official communication like for work or school”

“Job information, University+company information, info from stores and restaurant”

“To use different websites and contact different people (mostly not friends)”

“Contact with others than friends”

“To communicate with people who are not necessary friends”

“To check outside my friends’ zone, communication with work, school, other communications”

“Communication with people other than friends or family”

“Contact people, companies etc. not friends mostly, then i use facebook”

Some wrote they use email for communication in general. And some said they use email for serious and more important communication. Just a very few mentioned about send files/documents.

“Mostly for work and other things that require a more 'serious' approach”

“More serious reasons, may be when i have ordered something from the internet, or may be a job application”

“More serious professional communication, studies, job and so on”
“More important communication, such as work related things”

“Study/work need, eg. emailing professors/coursemate. Discuss serious issue”

“For more important communication types”

“Work and more serious communication”

A few respondents mentioned about contacting friends. And to few they use email for more formal, personal/private communication.

“When i need to contact teachers, people i do not know on a personal level, write formal messages”

“To write longer and elaborated messages, it’s a more formal kind of communication”

“Communicate, send documents, for anything that is more private than anything i’d send through facebook”

“It is more official affairs, universities, teachers, colleagues, and also applications”

“For more formal communication like with my boss”

“More formal reasons, not so much communicating with friends”

“More formal communication with employees, group mates”

A few numbers of participants revealed that they use email to check info and apply for jobs or internship.

“For applying e.g internship, job, or to send text to peoples that are not on my facebook and to communicate with teachers”

“More important things like job applications etc.”

“To send more important stuff that what i can on facebook, such as apply for jobs”

A little minority of respondents said they use email because of communicating people who are not on facebook. And a very small number of respondents spoke about communicating family via email.
“For writing to people who does not use facebook, and send more serious emails to like company customer services and stuff like that”

“School work, when i have to send e-mail applications, i also email with my dad, he does not have facebook”

“Mostly for formal communication and to keep contact with friends who are not in facebook society”

“To contact people i do not have on facebook”

A very few number of respondents (1%) mentioned that the medium is easy to communicate.

“It's a fast and easy way to communicate with everyone i need to communicate with”

“Communication is easy with parties that you have not had contact with before”

4.2. Focus Groups Results

The results from the focus groups discussions are presented in different segments based on the participants’ central points of discussions and the main issues raised towards facebook and email. More especially, the segments are made according to the themes raised in the discussions.

Facebook as a mode of communication: Facebook was described as an easier and faster mode of communication. Most of the participants discussed and agreed that it is easy to know update of others just with a one click even without contacting people. They think facebook makes it easier to know about others without asking them what they are doing. Facebook was described more of an informal mode of communication. A participant defined facebook as a warmer kind of communication, and others agreed with that. Facebook was considered as a convenient medium to all of them, one participant pronounced that on facebook “You can communicate, see pictures everything together.”, everyone else screamed with “yes, yes”. The participants compared facebook with kind of news page where they can find news about their friends. The participants talked about doing varieties of communication via facebook, and according to some participants, email was a tool where they can only do something very specific on a certain topic, other participants of that group also agreed with this statement. One of the participants said she thinks email is somewhat a medium to communicate with
unknown people but on facebook it’s more about communicating with known people, others participants of the group agreed with her. Some comments from the discussions are given here that reflects the above points.

“*It’s very easy to use, you just open the website and then you can see a lot of friends and news at the same time, you do not need to contact everyone.*” (Participant no.2)

“*Facebook in some way is a very local news page that you get to know what happens to your friends. You cannot use email in that way. It’s much more entertainment in that way. You can log in to facebook and just look.*” (participant no. 4)

“*Faster mode of communication cause it’s a sort of texting people just on their smart phones. You might check your email once a day but you may never log out facebook during the entire day*”. (Participant no. 4)

“*You do not need to actively contact anyone and ask –hello, what are you doing? You just go to the news feed*”(participant no. 1)

“*Email is someone consciously writing something very specific to you about a certain topic but on facebook they are writing something in general that they would like to share with who ever they have accepted as friend...the people you do not know may mail you. But on facebook you usually accept people who you know*” (Participant no.4)

“*It becomes more lot of a world news thing depending on how diverse your friends are.*”(Participant no.4)

“*I use facebook to communicate with my grand mom*”

**Communication with friends via facebook:** All of the participants considered facebook as a platform for communicating friends. The participants think facebook is a more informal way of communication, so it’s more preferable to communicate with friends. Facebook was discussed as a tool to know about people who have not been contacted for a long time. It is a tool through which participants can communicate with their friends, especially whom they do not see every day or ever not in a year. For connecting with friends all of the participants prefer facebook. In relation to this, one of the participants said “Because it’s easier. Since people check fb more.” Participants said they used email earliar to communicate with friends,
and send pictures. But now they use facebook to serve this purpose. All of the participants of
the focus groups agreed that they communicate friends mainly via facebook. But some said
that sometimes they have to use email to communicate with few friends because those friends
do not use facebook.

“I have some friends i didn’t see for long time , one of them also moved to europe
and just got married and started her new life. I did not know those information
before. But when she came to europe she started using facebook and uploaded some
photos then i saw , aha now you look like this and your husband look like this .”
(Participant no. 2)

“I have added friends whom i did not have so much contact with. But i know what
they are doing and they know what i am doing through images and status update.”
(Participant no. 3)

“You can use it to talk with your friends abroad but you also use it to talk with
people who are also in your home town.” (Participant no. 12)

“Friends from all over the world you cannot see every day.” (participant no. 7)

“When connecting friends different countries i used email but now i do it on
facebook.” (Participant no. 6)

“From my point of view, it’s not possible to communicate every friends or family
members every day, if i use facebook then i can see what’s the update, what they are
doing actually.” (participant no.16)

“I can connect so many friends in a very short time and easily. I also have such
friend who mail me because they are not on facebook, and they live in my home
land” (Participant no.14)

**Sharing pictures and feelings on facebook:** The focus group participants discussed
facebook as a space for sharing pictures and feelings, and also a way to see other’s pictures
and updates. And therefore it became part of many of their lives, which cannot be ignored. A
participant added that through photos on facebook she can see one’s grow up. Sharing photos
on facebook was also described as a way to let friends know about current situation. The
partipants stated that it’s easy to share photos via facebook.
“...I sometimes share my feelings, my photographs. So it’s a part of life, and a thing that you cannot ignore.” (Participant no. 15)

“It’s the only possible tool where you can post your photos, feelings, views and so on- wherever you are.” (Participant no. 16)

“In my case i have young family members, and honestly you can watch on facebook grow up via the pictures. So in that case it’s not turns out to be a timeline but forward and backward of pictures.” (Participant no. 4)

“I sometimes upload the photos i take because usually some friends sometimes write me Where are you? What are you doing something like that. So i upload some photos then they will know where i am and what i am doing.” (Participant no. 1)

“I was sending pictures before through mail but now it is easier to do it via facebook.” (Participant no. 6)

For group communication and organize events: Most of the participants discussed and agreed that facebook helps to maintain group communication and organize events. Most of the participants said that they have group for their class which they found very helpful. They usually communicate with classmates via the group on facebook, and use email sometimes to send files. The respondents said, on facebook group everyone on class can see if there is any news for them, like a participant said “if the lecture is cancelled you warn that on facebook then everyone knows. I got my information first on my facebook then on my mail”. The discussions also explored that facebook is an easier tool to organize events.

“I am working with chineese swedish student organization. So we are using facebook group to work, to colaborate. So i think it’s important. So i m using facebook to communicate that group” (Participant no.1 )

“...besides friends we use facebook for society, party, groups.” (Participant no. 6).

“We use private message to several friends at a time, like group message for attending in a party. That’s a good way to share information with more than one person.” (Participant no.7)
“Arranging event is easy on facebook cause we all can discuss about participating there, specially checking- like what time, what to bring, how is going.” (Participant no. 7)

Personal communication on facebook: The focus groups participants discussed that when they do personal communication on facebook what they prefer, if writing on someone’s wall or sending private messages. All of the participants said they use private message in most cases and when they think the matter related to personal issues. Most of the participants said they prefer to send private messages on facebook when they think something they do not want many people to see except the person or group of persons they are writing to. They agreed that sending a private message is like sending emails. Some participants’ said they write those things on wall what is not really personal and not a problem if other people see, like saying happy birthday. But the participants also discussed that what is personal to one that may not be really personal to others, it varies person to person what they consider as personal.

“Because you do not need everyone to know when and where you are meeting. If it’s something personal, then you know it’s no one else’s business. so anything at all personal i put into a message which is somewhat like email but you can access it via fb.” (Participant no. 10)

“If i write something on my friends’ wall then it must be that i think he or she would like to show off that. like, i say congratulations for your new job or wish you good luck when you go somewhere for a trip.” (Participant no. 2)

“We do public things, like when someone’s birthday” (Participant no. 11)

“We use wall for non personal stuff” (Participant no. 9)

“Private communications are always private.” (Participant no. 15)

“It varies person to person who wants what to keep private. Some people post mobile phone number on wall but others just send on inbox. So there is the option that what you do not want others to see you send it as a private msg instead of writing on wall” (Participant no. 13)

Satisfactions derive from facebook: Most of the participants discussed that it’s fun to use facebook. All of the participants agreed that sometimes they use facebook to get rid of boringness. Most of the participants considered facebook as a medium of getting
entertainment. All most all of the participants said that facebook is faster, so sometimes it works to communicate with friends instead of text ting them. Participants said they like facebook because it provides many options. All of the participants discussed and agreed that facebook is such a medium where they can get information without even asking for that particular information, particularly news related to friends. One of the participants said facebook is serving the purpose of high school reunion, because they can see those people on facebook so they do not need to join reunion. Some participants said facebook is better than email, they said through facebook it’s easy to maintain long distance relationship, It’s fastest way to get information about many people. The participants like using facebook because they get lots of dimensions in communication features. Other issues they discussed were using facebook is recreation, it’s kind of memories, it’s multidimensional, it’s user friendly, it’s easy to remember friends, it’s part of life, it’s kind of alternative media where people can share whatever happens in their life, it has everything in one single page, like photos, private messages, news etc. They said it’s easy to get updates through someone’s wall or newsfeed. Some participants said it’s an amazing medium, and because of facebook now there are more things to do. Few said it’s a good tool to communicate those people whom someone feels shy to communicate face to face. The following comments from the participants reflect the above issues.

“You can do everything on facebook, they offer you all the services including chat”. (Participant no. 6)

“It’s a kind of entertainment, and memories. You can see pictures and it’s kind of look back on memories.”(Participant no.4)

“Facebook is more, for me, something like fun. When i have time or when i get bored and i have nothing to do in the class then i check it otherwise.” (Participant no. 2)

“There are so many dimensions on facebook, on email you write text but on facebook there are different ways to communicate.” (Participant no. 8)

“Facebook is amazing thing, they came like a very simple one and they improving themselves quite fast. The point is that now we have more things to do. Starting from the individual life, family or social life, it is also getting importance in cultural life. facebook has everything in one single page, i mean you can do all these from a
page. You can post music, post pictures, it’s kind of multimedia or multi
dimensional”. (Participant no. 13) “You can see whatever you want. You do not
have to request anything, when you are friends with someone you get information
about the person right away. You do not have to wait that person to email you. You
can always go to wall and see what’s going on.” (Participant no. 4)

“It’s completely different from others, it has user friendly applications. Facebook is
introducing lots of features and they are studying what new users intend to use in
this communication. So people are feeling life facebook is part of their life. They get
everything there, their friends, family.” (Participant no. 15)

“Earlier i had to remember all of my friends name to mail them. if i do not see them,
i do not remember them but if i get update of someone on news feed on fb that helps
me to remember my friends... It is kind of an alternative media. Something new,
exciting, terrible, bad, whatever happening in people’s life they are sharing. These
are great thing.” (Participant no. 13)

“Seeing others photos, it’s a kind of recreation.” (Participant no. 14)

“Facebook is more users friendly but email is not.” (Participant no. 16)

“There are some groups or pages on facebook where interested people are writing
about something, now we know more than before, since advent of facebook is
making life easier... You can easily add people on facebook whom you know but feel
shy to talk face to face but facebook makes it easier continue communication with
this type of people” (Participant no. 13)

“Facebook is serving the part of high school reunion. Cause before facebook you
would come back after 20/30 years and see how people are doing after high school
but now you do not need to go high school reunion , you can see that on facebook.”
(Participant no. 4)

Professional communication on facebook: All most all of the participants said they
usually do not use facebook in professional setting. Many participants said they have their
boss added on facebook but they do not communicate about anything official there. But
two participants had different opinion about this professional and non professional use of
facebook, they think facebook is using sometimes in professional communications as well.

“I have my boss on fb. I will facebook her but not for any_ if for job stuff i ll email her or call. And on facebook that’s different so we have a line between professional and non professional” (Participant no. 10)

“...i think those lines are blurring. People from works are adding each other. And messaging to people about work stuff.” (Participant no. 5)

“Some professionals just say ok leave a message on facebook.” (Participant no. 15)

“But they are like my director or boss, i would never be facebooking” (Participant no. 9)

“My boss added me but i never use it for professional issues”. (Participant no. 10)

Other issues raised regarding facebook: Besides the above points the participants raised some other usefulness of facebook. Some participants said sometimes facebook works as biodata or kind of CV. To some of the participants, facebook is not only using for social networking and communicating with people only but they also defined facebook as a helpful medium to see others profile to get basic information and to get impression about someone. The participants talked about checking facebook after awaking up in the morning, most of them agreed that they check facebook, but some participants had different opinions about that, they argued that sometimes they check email first, especially when they know there is something important supposed to come. Some participants think facebook is helpful to make relationshp stronger, specially distance relationships. But one of the participants said she thinks sometimes facebook can be cause of breaking relationships. She (Participant no. 5) gave an example that “some one likes your status and your boy friend may feel jealous”. Few participants said facebook is a good platform to share something with someone whom they think they feel shy to express themselves face to face. A participant (Participant no. 6) considered facebook as “personal wikilikes” and others agreed. Some participants talked and agreed that facebook sometimes can lead to make someone depressed because sometimes people present their life in a more colorful way than what it is in reality. For example, a comment from one (Participant no. 4) of the participants was “facebook somewhat makes you depressed cause you sort or sensor what you put on facebook yourself, you do not put horrible photos of you, you usually do not update status saying bad stuff that happens to you.
So you post good things, good pictures of you when you are on a vacation. Others think my life is boring.” The participants then discussed about the existance of facebook. Majority agreed that existance of facebook is important for them. Two out of sixteen participants said it will not be a problem if facebook disappears, but others participants did not agree with them. The participants also talked about their privacy concern on facebook, most of them agreed that it’s important to take care of the privacy setting on facebook. The following comments are the examples that reflect the above themes.

“Employers also check you on facebook sometimes before recruiting.” (Participant no. 16)

“I search person who is going to interview me. Like, may be i got a email from a certain company or organizations, and i can see who is the manager or who is the chief thing in the department. Then if i know the name i search it on linkedin and facebook. May be you cannot see the whole page of the person, but i can at least see which university s/he studied and which kind of experiences s/he has.” (Participant no. 1)

“You can have a new email id everyday but you cannot have a facebook profile everyday, it’s kind of your bio-data” (Participant no.13)

“Facebook present you more illeborately but you cannot do that on email” (Participant no. 15)

“If i am supposed to get anything urgent i do check mail first, otherwise facebook.” (Participant no. 10)

“I do facebook first. I log in to facebook and then do others”. (Participant no. 9)

“When people cannot tell you something in person they use facebook to tell you that. When they think it’s embrasing but they want to share it with you they use facebook.” (Participant no. 12)

“I cannot imagine that facebook will disappear. “ (Participant no. 11)

“But sometimes it’s not satisfying cause a lot of people have the tendency to post the good things that are happening in their life, their life look more glamorous than that actcually is” (Participant no. 10)
“People are getting addicted to facebook. Sometimes people are not aware about their privacy on fb which is not really good. I take care of everything whatever i upload on fb.” (Participant no. 13)

“You need to read carefully what the privacy setting information says otherwise only a word can lead you to miss your privacy.” (Participant no. 16)

**Issues raised and discussed about email:** All of the focus groups participants considered email as more formal means of communication; to them it is more preferable medium for professional communication. Some of the participants said using email is like a habit since they are using it since long ago. All of the participants agreed that email sometimes works as supplementary medium of communication, like they use email to communicate with few friends who are not on facebook or who cannot access facebook, may be if someone is in China they do not have access to facebook, and sometimes if there is a classmate who does not use facebook then they move to email to communicate them. Some said they send documents via email to their classmates but otherwise most of the participants communicate their classmates on facebook. The participants also talked about email for group communication or group message to friends, but no one said they use email for this kind of communication. Majority of the participants said email is something very serious. A responded said though she use facebook to communicate with friends but she preferred email to communicate with friend if only there is any serious issue to talk about, when they exchange very long messages to each other.

“E-mail is more when you contact the company you tend to use email” (Participant no. 3)

“It’s some what like habit. So we continued to use email. But may be later i know someone but i do not know their email but i know their facebook. Then facebook is much convenient to communicate.” (Participant no. 2)

“We had a classmate who does not use facebook. So for a seminar we were on the same group, then we moved to email for that seminar group so that she can join in our conversation” (Participant no. 11)

“For group message to friends, previous year i used email for such communication but this year i do not use email. Last year i used email all the time but not now...i use facebook now.” (Participant no. 6)
“We use email for some friends who do not have Facebook. For example, I have a friend in England and she does not have Facebook, so we use email to communicate.” (Participant no. 10)

“If there is something serious, my friends and I usually communicate through email. For example, a friend of mine had really tough time a couple of weeks ago. She emailed me instead of sending Facebook message. And then I responded. That was kind of a very long message.” (Participant no. 9)

“Checking email is unavoidable, because professors are sending mails, mails from colleagues and seminars... meetings reminders popping up every day.” (Participant no. 13)

“I use email for formal purpose, when I approach something formal, then email the person.” (Participant no. 14)

“We use Facebook for communicating classmates but email only when we want to send something, like documents or summaries.” (Participant no. 12)

“I have to mail a few of my friends who live in China, they cannot access Facebook, so we use email to communicate, but otherwise I use Facebook to communicate with my friends.” (Participant no. 2)

**Time spends on Facebook and Email:** The participants break down in laugh when a discussion topic raised that the usual time they spend on Facebook. In one focus group, everyone together said- “a lot, a lot”. Most of the participants in all the focus groups agreed that they usually spend a lot of time on Facebook, if they have time. The participants said it varies how many times they check email or how much time they spend on email. They usually check email one or two times, but sometimes check more when they know something important will come. Most of the participants said they keep their Facebook profile signed in, whenever they get time or feel bored or have break from study they just open the Facebook window to see updates and posts from friends and other groups. Some participants said they check Facebook more on their mobile phones. They feel it’s addiction but they still do it because it became habit.

“I check my email may be once a day but sometimes I do it several times a day. Because I get most of my important information like via Facebook. If I know an
important email coming in then i’ll check. But i communicate with my family mainly through facebook, i get a lot of information about my classes via facebook, cause my group, my core group – we have this on going facebook pages, and a lot of questions that pop up like- where is class, then we go directly to the facebook page instead of doing email or using phones to contact people, so stay connected about our class all the time via fb.” (Participant no. 4)

“We are communicating on facebook so much” (Participant no. 8)

“I just check facebook on my phone, because it’s there and it’s so easy.” (Participant no. 10)

“When you have facebook on your phone you always...It’s addiction” (Participant no. 11)

“Checking facebook everyday and it just becomes habit.” (Participant no. 2)

“We spend a lot of time but If i don’t check facebook one day i would not miss anything important, ya i will miss friends saying something about a cute cat or something.” (Participant no. 3)

4.3. Analysis of the Results

4.3.1. Summary of the Results

The findings show that students have distinguished two main purposes of using email and facebook where the first one is regarded as formal and professional medium and the later one as informal and non-professional medium. Students use email basically for some specific reasons that include professional contacts for job, education and document sharing whereas facebook is mainly used for informal contacts mostly with friends and family and sharing photos, creating and joining events. Both of the medium seem useful for the students as many of them have bookmarked online link of those medium on their personal computer and even if on their smart phone. However, study reveals that majority of the students spend more time on facebook than email.

The results show multiple dimensions of students’ usages of both the media. For example, the major dimensions of using facebook were to communicate with friends, share photos with friends, maintain personal communication, and create and join events and meetings. Many
students have considered facebook as an easy medium to reach many in the network and it is also treated a platform of fun and relax. Facebook has been useful for contacting general communication like personal, group or academic communication, for getting news and updates, connecting people abroad and for seeing what others are doing(MRT). On the other hand, students use email mainly to maintain professional contact like communicate with an organization or employer, communicate with teachers and document share (e.g., pdf files). Some students also use email to get some general information (e.g., job, offers, stores, restaurants, different websites, register accounts, tickets).

The students use both email and facebook for communicating with their family although use of email in this purpose decreased a lot compared to previous years. Some students accept teachers as friends on facebook, but they do not usually talk with teacher with regard to educational matter on facebook. In this case, students use only email to contact with their teachers. Email is also used as a supplementary medium of facebook as sometimes students use mail to contact with friends or people who are not on facebook. The study result shows that all the students have been using email for three years and more but not all the students were users of facebook for that long.

The results have explored some changes in students’ communication pattern in the last two years in terms of facebook and email usage. For personal communication, for sharing photos with friends, for communicating with friends and family use of email have decreased significantly from how it was used two years ago. On the other hand, uses of facebook have increased in the same contexts over two years. However, although there was decrement of using email for family communication students are still using email more than facebook for this purpose. The results show that the trend of accepting facebook by the student has increased and therefore, the use email is being declined or rejected for some purposes. For example, communicating and sharing photos with friends’ facebook almost has taken the place of email. Moreover, two years ago students more used to check email first when they woke up in the morning but now they check facebook more. Another significant change that the results reveal is that the most time students used to spend on email two years ago decreased immensely, and by contrast the students spend more time on facebook than before.

Purposes that did not notice remarkable change were to attach documents, to communicate with teachers and to communicate with organization or employer, students strictly use email for these three purposes.
Now if we turn to the students’ perceptions toward Facebook and email, the study findings show that the students identified Facebook as an easier, faster, warmer, and convenient mode of communication. Students feel that Facebook makes it possible to know about people with one click without even asking them what they are doing. Students considered Facebook as a platform for communicating with friends. They think that on Facebook it is possible to see activities and lives of friends who live far and cannot be seen or met every day or not even in a year, and they can also know about people who have been out of touch for a long time. Students think that Facebook is a kind of ‘friends’ news page’ where they can access news about friends. Some of the students’ perceived Facebook as a tool to communicate more with ‘known people’, whereas email is to contact with ‘unknown people’ about a ‘very specific and certain topic’. Students think that Facebook is a space for sharing photos and feelings; they think it’s very easy to do that on Facebook, and through pictures friends can know one’s present situation and even someone’s growing up. Facebook was identified as a helpful media to maintain group communication and organize events. It was also defined as an easier media for students to communicate with their classmates via Facebook groups, but they think it is easier to use email when they share files with classmates. Some students’ feel sending private message on Facebook is similar to sending an email. Because when they want to do personal communication on Facebook they can send personal message, otherwise they can write on friends’ walls. Students described Facebook in different ways, like ‘it is recreation’, ‘it’s memories’, ‘it’s multidimensional’, ‘it’s user friendly’ ‘it’s part of life’, ‘it’s a easy tool to remember friends’, ‘it has everything in a single page’, ‘it’s helpful to get rid of boredom’, ‘it’s fun to use and entertaining sometimes’ and ‘it’s an amazing medium’. Some students think Facebook is faster like texting, and they also think there are so many options on Facebook and lots of dimensions in communication features. Some students think Facebook is a better communication tool compared to email to maintain long distance relationships. Students spend a lot of time on Facebook, often they keep themselves signed in whole day on Facebook and they look through it whenever get sometime. But how much time they spend on email varies, sometimes the students just check emails one or two times a day and sometimes more if they know something important would come. Some students think that because of Facebook now there are more things to do. The students also think that Facebook sometimes work as someone’s profile to get basic information and impression about someone. Majority of the students have just one profile on Facebook, whereas many of the students have two, three or more email accounts.
Existence of facebook was found important to the students. However, besides all these positive perceptions about facebook, few students think that facebook can lead to depression to its users. Because sometimes some people present their life in more colorful way through pictures on facebook than what it is in reality. Although the students’ perceived facebook as a friendly medium for communication in many ways, but there is an exception that they do not appreciate the media for communication with professionals and jobs. It is ok for some students to add boss on facebook but they do not use it for office issues. The students think email is more formal mode, thus they prefer email for professional communication. A part of the students believe that they use email because they have been using it for long time. The students’ perceived email as a reliable tool to share documents, like attaching pdf files. Many students think facebook cannot serve all the purposes of email, and some students perceived email as something very serious.

4.3.2. Theoretical Reflections
The results of this study support a basic concept of uses and gratifications research. The reasons for students’ email and facebook usage were clearly distinguished by the characteristics of the media, and the specific need they intend to fill that ranges from specific time and context of use to chosen contents. The most salient dimensions of using facebook were for communicating friends (connecting new friends and keep in touch with old friends), creating events, sharing and seeing photos and interacting with general activities (group, academic, work etc.). These findings support the study results of Raacke and Bonds-Raacke who have found the most common reasons for using facebook are ‘to keep in touch with old friends’, ‘to keep in touch with current friends’, ‘to post / look at pictures’, ‘to learn about events’, ‘to post social functions’, ‘to share information about yourself’ (Raacke and Bonds-Raacke 2008). Similarly, the key reasons for using email by the students were reported mostly for contacting faculty, for educational purposes and official contact to organization, and for work or job. These findings reflect many of the earlier studies (e.g. Hinkle 2002, Bloch 2002). The both writers have shown that email has played a vital role in communication between the students and the faculty. This finding is ten year old, however, compared to the present study students’ habits in this context have not been changed after ten years. This is obviously a factor that indicates the basic tenet of uses and gratification approach- gratification sought and gratification obtained.
The study reported that Facebook is a platform for fun and relax and sometimes entertainment. Students used Facebook for getting updates about news and events, seeing what others doing, sharing and seeing picture and for general information (e.g., store information, offers alerts). On the other hand, email was identified as a reliable and serious medium. Student used email for educational (contacting faculty and attaching documents) and organizational (job and general query) context. These results support another basic principle of uses and gratification approach, different reasons lead to different media use. The motives of media use can be divided into two general categories: (i) instrumental and (ii) habitual. The instrumental users purposefully seek all types of information whereas habitual users are more selective in their act of media consumption (Rubin 1984). Therefore, in this context, the study results indicate that due to multiple features of information and communication, Facebook fill the instrumental need of the students and the habitual need is completed by the use of email.

The results of the study are also compatible with basic assumption of media richness theory (MRT). The perception with regard to Facebook and email, the students indentified Facebook as an easier, faster and convenient mode of communication to maintain the network. These points imply one of the components of the media richness that is immediacy. In terms of the immediacy Facebook is found richer than email. Facebook is also found as multi-dimensional, entertaining, user-friendly and a combination of everything in a single page. These stated points have come from the multiple features of Facebook that includes from a short comment in a post of Facebook wall, inbox message, picture, share link, upload video to variety of emoticons (for sharing symbolic feelings). These communicative options can be considered as multiple communication languages in line with the MRT’s other features that are language variety and focus on personal trait. The variety of language implies the capacity of a media to convey natural language and number or graphs that works as the component of effective communication. In Facebook context, posting something on wall, commenting on a post, Inbox messaging, sharing links and photos show Facebook’s richness in terms of language variety. On the other hand, in terms of the capacity to focus on personal trait, Facebook covers this attribute by personal profile of users and their interpersonal communication as well as emoticons. A Facebook profile helps to get basic information about the profile holder that leaves impression to others (known and unknown), and emoticons convey personal feelings and emotions through a symbolic form.
On the other hand, email has shown the richness in terms of content sharing. With a view to educational and organizational contact, student used email for serious and reliable communication including formal plain text to file attachment (pdf files). This result supports Lan and Sie study who have reported that in terms of content richness, email had the highest rate among SMS and RSS in a mobile learning environment (Lan and Sie 2010). From a strategic communication management perspective, MRT suggests that effective managers select medium considering the degree of richness required by their tasks or specific objective (Trevino, Lengel and Daft 1987). In this view, the study revealed that the students used email and facebook for different reasons and specific tasks after realizing those medium’s character, structure and functions.
5. Discussion and Conclusion

5.1. Discussion

The analysis of the findings shows that although students use facebook for many purposes but they keep their professional and formal communication (e.g. with employers or teachers) limited within email. For all other purposes of communication except contacting family and sharing files, students generally use facebook. They use both facebook and email for communicating family but acceptance of facebook in this purpose increased considerably and the use of email decreased than previous years, which indicates that the trend for communicating with family is increasing towards facebook. It is worth noting that now students check facebook more than email when they log in to the Internet in the morning, which is an indication of the students’ increased affection towards facebook. As the analysis shows that the students are using email since a long period of time compared to facebook, which means that facebook has been a new media to some students. Not surprisingly, the students have a firm position to use email for very serious and formal type of communication, since they are accustomed with email for a long time, which has been a part of their habit and a form of reliable communication media. The students mostly use facebook for daily communication, however, email is their fundamental choice for professional communication. They also use email as a supplementary medium of facebook. For example, few students use email to communicate with friends or people who are not on facebook that means though they choose a new media according to their needs and satisfaction but they could not totally reject email. Students’ perception with regard to facebook is multidimensional and for that reason they spend much time on it whereas their perception regarding email is more concrete to some specific purpose.

The changes in students’ media choice compared to previous years are valuable exploration of this study. Earlier the students used email for all sort of communication (formal and informal), but now the students have moved to facebook for informal purposes. The students are using facebook for many reasons including its easiness, and they think it is relaxing and entertaining, which means media characteristics are important factors for students when they choose a new media or when they give priority to a specific medium.
5.2. Limitations

Although the study was conducted carefully, yet I am aware of some of the shortcomings of this study.

First of all, the focus groups are small and the participants are not so many and therefore it can be a matter of question if they are enough to represent the majority of the students.

Secondly, a big part of the questionnaires were distributed in several campuses of the university, some of the students were sitting in groups during questionnaires filling out process, so that there might be a possibility of getting friends influence during that time.

Thirdly, the students had to answer some comparative questions e.g. facebook and email usages now and two years ago, it cannot be confidently said that they filled out those questions with enough care, and if they could clearly remember what they used two years ago.

5.3. Conclusion

This study focuses on usages of email and facebook by the students in their daily communication activities. Through the research I wanted to explore (RQ. 1) What are the dimensions of using facebook and email for students’ everyday communication? (RQ. 2) What changes have occurred in students’ communication pattern in terms of facebook and email usage? (RQ. 3) How students perceive facebook and email as modes of communication? I have applied two theories: Uses and gratifications, and media richness theory to analyse the findings of the study. In relation to RQ1, The study results show that students are using both email and facebook to serve various communication purposes, but they made a distinction between the two media: professional and non-professional, formal and informal. To the students facebook is more non-professional, informal, and relaxing mode of communication where as email is more professional and formal. Students use facebook mainly to ‘communicate with friends and family’ ‘share photos with friends’ ‘maintain personal communication’ and ‘create and join events and meetings’. The results show that there is a tendency among the students’ to blend the both media for communication according to their needs and satisfaction; they use the both media for communicating with family. The students use email for communicating with organizations, professionals and teachers, and to share electronic files.
Concerning RQ2, the results show that there have been changes in students’ communications pattern in last two years, especially in terms of personal communication, photo sharing, communication with friends and family. The results show that use of email has decreased in these communication purposes, and these communications except interacting with family are mainly taking place through facebook. The result also shows that more students now check facebook first when they wake up in the morning. On the other hand, the study results shows that there were no changes occurred in students use of email for attaching pdf files, for communicating with teachers and for communicating with organization or employer; students are firm about email for these three reasons.

Regarding RQ3, the results show that the students perceived facebook as a platform for communicating with friends’ and a helpful media to maintain group communication and organize events. They also perceived the media as an easier, faster, and convenient mode of communication. The students want to keep office issues separated from facebook even though they are friends with boss on facebook. The results show that students perceive email as more formal mode, which they use for professional communication. A part of the students believe that they use email because they have been using it for long time. The students’ perceived email as a reliable tool to share documents, like attaching pdf files. Students do not think that facebook can serve all the purposes of email.

The results of the study show some additional information that students spend most of their time on facebook compare to email. Students bookmarked both of the media on their personal computers and smart phones, but a part of the students tend to bookmark only facebook on their smart phones.

To conclude, it can be said that email remains as more of a channel for professional and formal communications, like communicating with office or work or teachers. Facebook became a part of students’ everyday life for social communications like connecting friends, sharing photos with friends, maintaining events, doing personal communications and so on. However, students use both facebook and email to communicate with family but the trend is increasing towards facebook. There have been changes in students’ communications pattern. Email is no longer a mode for all sorts of online communications; the use of email for personal communication and social purposes decreased drastically. The students’ have adopted facebook for these purposes, however, the results do not demonstrate that facebook has replaced email totally rather students are using the both media side by side, with keeping
Synthia Bintey Rahman

distinction between professional and social purposes. Scholars also identified through previous studies that “users do not embrace a single form of social media, but tend to employ a range of tools for communication. This trend shows that one type of social media does not replace another but, rather, becomes integrated into a bundle of media use that includes online and offline forms of communication” (Quan-Haase and Young 2010,350). Unlike these scholars, I would say the same that students can use the both media simultaneously according to their needs and satisfaction. I would also add that using facebook more than email for several purposes can be an indication of students’ increasing tendency towards Castells (2007) ‘mass-self communication’ rather than keeping themselves limited to just within interpersonal communication through a channel like email. Therefore, it is important to follow up this study results to understand if newly approaching ‘mass self communication’ gets wider establishment among different communication types. I believe this research can be a useful base for the future communication and social media researcher to analyze further changes in students’ communication pattern and media using habit.
Appendix A.

Charts from the findings of the Questionnaires:

Section 1. Demographic and basic information

Chart 1. Gender distribution of the respondents

Chart 2 (Q.1) Number of accounts on Facebook
Chart 3 (Q.2)

**Number of email accounts**

- One: 12%
- Two: 43%
- Three or more: 45%

Chart 4 (Q.3)

**From how long the students are using facebook?**

- 6 months: 73%
- 1 year: 19%
- 2 years: 5%
- 3 years or more: 3%
Section 2. Results from Questionnaires: Current media using habit of the students

Chart 6 (Q.6)

From how long the students are using email?

- 6 months: 0%
- 1 year: 0%
- 2 years: 0%
- 3 years or more: 100%

First checked media when the students wake up in the morning

- Facebook: 40%
- Email: 29%
- Both equally much: 21%

Q5.10.12.17.6
Q. 11. 13. 14. 15

**Trends towards facebook usage**
- For personal communication
- For sharing photos with friends
- For communicating with friends
- Spend most time with

<table>
<thead>
<tr>
<th></th>
<th>Facebook</th>
<th>Email</th>
<th>Both equally much</th>
</tr>
</thead>
<tbody>
<tr>
<td>For personal communication</td>
<td>53%</td>
<td>20%</td>
<td>6%</td>
</tr>
<tr>
<td>For sharing photos with friends</td>
<td>86%</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>For communicating with friends</td>
<td>84%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Spend most time with</td>
<td>75%</td>
<td>9%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Reasons for using email**
- To attach Pdf files
- For communicating with family
- For communicating with teachers
- For communicating with an organization or an employer

<table>
<thead>
<tr>
<th></th>
<th>Email</th>
<th>Facebook</th>
<th>Both equally much</th>
</tr>
</thead>
<tbody>
<tr>
<td>To attach Pdf files</td>
<td>97%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>For communicating with family</td>
<td>46%</td>
<td>35%</td>
<td>19%</td>
</tr>
<tr>
<td>For communicating with teachers</td>
<td>98%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>For communicating with an organization or an employer</td>
<td>96%</td>
<td>1%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Chart 7 (Q.9)
Can facebook serve all the purposes that email does?

- Yes: 74%
- No: 19%
- Do not know: 7%

Do the students accept teachers as their friends on facebook?

- Yes: 44%
- No: 33%
- It depends: 23%
Chart 10 (Q.19)

**Bookmarked medium on personal computer**

- Facebook: 12%
- Email: 10%
- Both: 78%

**Most checked medium with smart phone**

- Email: 14%
- Facebook: 35%
- Both equally much: 51%
Section 3.

Results from the questionnaires: Comparison between the tendency of using the both media now and two years back:

Chart 11 (Q5a+5b)

Chart 12 (Q6a+6b)
Chart 13 (Q10a+10b)

Sharing photos with friends

- To share photos with friends-two years ago
- To share photos with friends-now

<table>
<thead>
<tr>
<th>Media</th>
<th>Two Years Ago</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>8%</td>
<td>22%</td>
</tr>
<tr>
<td>Facebook</td>
<td>72%</td>
<td>86%</td>
</tr>
<tr>
<td>Both</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Chart 14 (Q11a+Q11b)

Media to attach Pdf files

- Most used media to attach Pdf files-two years ago
- Most using media to attach Pdf files-now

<table>
<thead>
<tr>
<th>Media</th>
<th>Two Years Ago</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>96%</td>
<td>97%</td>
</tr>
<tr>
<td>Facebook</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Both</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Communicating with friends

- To communicate with friends - two years ago
- To communicate with friends - now

<table>
<thead>
<tr>
<th>Method</th>
<th>Two Years Ago</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>5%</td>
<td>16%</td>
</tr>
<tr>
<td>Facebook</td>
<td>73%</td>
<td>84%</td>
</tr>
<tr>
<td>Both equally</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Communicating with family

- To communicate with family - two years ago
- To communicate with family - now

<table>
<thead>
<tr>
<th>Method</th>
<th>Two Years Ago</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>46%</td>
<td>59%</td>
</tr>
<tr>
<td>Facebook</td>
<td>35%</td>
<td>26%</td>
</tr>
<tr>
<td>Both equally</td>
<td>19%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Chart 17 (Q14a+14b)

**Communicating with teachers**

- Tool used to communicate with teachers - two years ago: 97%
- Tool using to communicate with teachers - now: 98%

<table>
<thead>
<tr>
<th>Email</th>
<th>Facebook</th>
<th>Both equally much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Chart 18 (Q15a+15b)

**Communicating with organization/employer**

- Tool used to communicate with organization/employer - two years ago: 97%
- Tool using to communicate with organization/employer - now: 96%

<table>
<thead>
<tr>
<th>Email</th>
<th>Facebook</th>
<th>Both equally much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>1%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Chart 19 (Q17a+17b)


Spending most time with

- Spent most time - two years ago
- Spend most time - now

Email: 9% (22%), Facebook: 63% (75%), Both equally much: 16% (15%)
Appendix B.

Are you using facebook and email?

Please help me with my thesis work by filling out a short questionnaire

Study Title: Facebook and e-mail as methods of communication
Department of Informatics and Media, Uppsala University

Your answers will be valuable for the study. Thank you in advance for your kind cooperation.

Gender: Male   Female (circle)       Age:   _________

1. How many accounts do you have on facebook?
   a) One b) Two c) Three or more

2. How many different email-accounts do you have?
   a) One b) Two c) Three or more

3. For how long time (approximately) have you been a user of facebook?
   a) 6 months b) 1 year c) 2years d) 3years or more

4. For how long time (approximately) have you been a user of e-mail?
   a) 6 months b) 1 year c) 2years d) 3years or more

5a. For personal communication, Which tool do you use most frequently?
   a) E-mail b) Facebook c) Both equally much

5b. Two years ago, which tool did you use most frequently for personal communication?
a) E-mail  b) Facebook  c) Both equally much

6a. When you wake up in the morning, which medium do you check first?
 a) E-mail  b) Facebook  c) Both equally much

6b. Two years ago, when you woke up in the morning, which medium did you check first?
 a) E-mail  b) Facebook  c) Both equally much

7. Generally for what reasons do you use Facebook?

8. Generally for what reasons do you use email?

9. Do you think that Facebook can serve all the purposes that email does?
 a) Yes  b) No  c) Do not know

10a. When you want to share photos with friends, which medium do you use most often?
 a) E-mail  b) Facebook  c) Both equally much

10b. Two years ago, when you wanted to share photos with friends, which medium did you use most often?
11a. When you want to attach pdf-files, which medium do you use most often?
   a) E- mail   b) Facebook   c) Both equally much

11b. One year ago, when you wanted to attach pdf-files, which medium did you use most often?
   a) E- mail   b) Facebook   c) Both equally much

12a. For communicating with friends, which tool do you use most often?
   a) E- mail   b) Facebook   c) both equally much

12b. Two years ago, which tool did you use most often for communicating with friends?
   a) E- mail   b) Facebook   c) both equally much

13a. For communicating with family, which tool do you use most often?
   a) E- mail   b) Facebook   c) both equally much

13b. Two years ago, which tool did you use most often for communicating with family?
   a) E- mail   b) Facebook   c) both equally much

14a. For communicating with teachers which tool do you use most often?
   a) E- mail   b) Facebook   c) both equally much

14b. Two years ago, which tool did you use most often for communicating with teachers?
   a) E- mail   b) Facebook   c) both equally much

15a. For communicating with an organization or an employer, which tool do you use most often?
   a) E- mail   b) Facebook   c) both equally much
15b. Two years ago, which tool did you use most often for communicating with an organization or an employer?

a) E-mail  b) Facebook  c) both equally much

16. Do you accept teachers as your friends on Facebook?

a) Yes b) No c) It depends

17a. Which tool do you spend most time with?

a) E-mail  b) Facebook  c) both equally much

17b. Two years ago, Which tool did you spend most time with?

a) E-mail  b) Facebook  c) both equally much

18. Have you bookmarked any of the following medium in your personal computer?

a) Facebook  b) Email  c) both

19. If you are a smartphone user, which medium of communication do you check frequently via the smartphone?

a) E-mail  b) Facebook  c) Both equally much
Bibliography


BBC. *Facebook surpasses one billion users as it tempts new markets.* October 5, 2012.


Castells, Manuel. 2007.


—. *The Information Age Economy, Society and Culture.* UK: Blackwell Publishers Ltd., 1996.


