n this chapter an attempt has been made to present a brief review of the researches available in the present field of investigation. It is an admitted fact that new vistas of knowledge cannot be explored unless we look into the past. Therefore, it is essential to scan the previously work carried out and accordingly address the areas which have not been hitherto looked into. In this chapter, the investigator has tried to addresses various issues related to finding appropriate literature and look for the reliable and valid literature. As reported above, an investigator has to move ahead for every piece of ongoing research to connect his endeavour with the work already done. This exercise culminates him to attain the overall relevance and purpose of his field of inquiry. The review of literature, thus, becomes a link between the research proposed and the studies already conducted in the field. There are probably three stages in most of the reviews. First, find information. Next, appraise what has been found for relevance and robustness and finally, synthesize findings into a set of collective conclusions. Survey of related literature is an essential requirement to the actual planning and execution of any research voyage. It serves multiple purposes and is of prime importance for a well-designed research study. It gives an overview of a specific field of inquiry and provides information about the design, the sample and the research tools employed by the other investigators. It helps the future investigators to state the problem, to weigh its significance, to work out for data gathering devices, suggest research design, to identify sources of data, to make effective statistical analysis, to arrive at logical conclusions and to avoid duplication. It asks questions concerning about the prevailing theories and hypotheses, the key researchers, the current state of the research, and the methods and methodologies being used. The review of related
Review of the Related Literature

literature is a sort of formal training, which enables the researcher to understand an idea’s genetic roots, and understand the “current conceptual landscape”. In other words, the literature review shows the potential researcher how prevailing ideas fit into his own thesis and how his thesis agrees or differs from them. It is not merely a summation of the existing work; its purpose is to analyze critically the applicable “published body of knowledge” in order to establish the current knowledge of that topic. It also satiates the existing literature in a broader scholarly and historical context. Thus, the review of related literature is an essential aspect of a research problem as it is a step of scientific method; it forms the foundation upon which all the future works are to be built. Mouton (2006) summarises the reasons why literature reviews are important as:

(i) to ensure that one does not merely duplicate an existing study, (ii) to find out the most recent and authoritative theories about the subject, (iii) to find out what the most widely empirical findings in the study field are (iv) to find out the available instrumentation that has proven validity and reliability and (v) to find out what the most widely accepted definitions of key concepts in the field.

Hart (1998) defines it as:

“The selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data and evidence. [This selection is] written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and how the effective evaluation of these documents in relation to the research is proposed”.

Literature review does not and cannot refer to every piece of literature in the field. Rather, a literature review is organised according to the research objective. It is a conceptually organised synthesis which ultimately provides a rationale for further research. Selection of limited number of works that is central to our area rather than trying to collect a large number of works that are not as closely connected to our topic area. Hence, an exhaustive literature search has been carried out by the investigator for the present study. In order to understand and review the existing literature for the study in hand, the researcher consulted different sources as research materials, which include monographs, conference proceedings, websites, various books, magazines, periodicals articles, journals, dissertations, handbooks, encyclopaedia, thesis and information from Internet sources as reference material etc. and had gone through the
content to abreast himself about the related studies. So, the study of related literature places the researcher in a better position only to interpret the significance of his own results.

In the present research, the investigator has scanned and reported most of the relevant studies done in India and abroad in the field of Internet usage among university students. The Internet is a complex, virtual, educational, psychological and social medium. To date, a complete understanding of its impacts is unclear. Thus, the Internet is an exciting and challenging research subject. The researcher reviewed literature that is related directly to the objectives and provides a sound conceptual, theoretical and practical understanding of Internet usage among university students. Therefore, in order to prepare a base for defining the problem precisely, making interpretation of data meaningful and drawing comparisons among similar studies. The present investigator studied the related literature extensively. The review provided an insight into various dimensions of the problem under investigation and related issues at different stages. In this attempt, the investigator was selective and reviewed researches, which had a direct bearing on the present study. The present chapter provides a thumbnail account of such studies, their ambit and outcomes. In this chapter, review of related literature published in the area is presented in chronological order. The available researches, which are directly or indirectly relevant to the present field of investigation, have been classified under six sub-headings as:

2.1 Studies on Internet-users and Internet Non-users:

2.2 Studies on Internet Usage and
   A) Life Style
   B) Attitude Towards Research
   C) Academic Achievement
   D) Gender and

2.3 Studies on Related Variables

2.1 Studies on Internet-users and Internet Non-users:
Ali Zarqa (2014) evaluated the university students' use of the Internet and their perceptions with regard to online academic life. Findings revealed that Internet use for academic purposes has both positive and negative aspects. Gender difference among students’ perceptions about the use of the Internet in their academic activities has
been observed. Both the genders expressed that Internet plays a positive role in their academic activities. However, female students have been found with more positive perceptions about its use in their education than males. It has also been found that Internet-users and non-users have different perceptions about its use. The non-users disagree with the scope of Internet in the academic activities, while the users agree that the Internet has a positive role in students' academic pursuits.

**Cliff & Nicole Ellison (2013)** used the survey data which is reported to have been collected from a sample of 614 non-academic staff at a large Midwestern university. Researchers explore the demographic and cognitive factors that predict whether a person chooses to join Face book. Findings revealed that older adults and those with higher perceived levels of bonding social capital are less likely to use the Site. The Internet non-users have expressed concerns about privacy, context collapse, limited time, and channel effects in deciding about not to adopt Face book. Finally, comparison of non-adopters to adopters was seen to differ on three dimensions - perceiving bridging, and social capital. Moderate users often experienced social capital outcomes similar to, or worse than, non-users. Besides, heavy users reported higher perceived bridging and bonding social capital than either group.

**Ibia & Ekott (2013)** investigated the Internet usage and the development of social skills among youth. Gender and age differences, differences in the degree of social involvement, social tolerance, patterns of behaviour between Internet-users and non-users and the relationship between Internet usage and social skills development was also investigated. The survey research design was adopted. A sample of 500 undergraduate students was drawn by adopting stratified random sampling technique at equal gender basis from 5 out of 11 faculties of the University of Uyo, Nigeria. Internet Usage and Social Skills Development Questionnaire (IUSSDO) with reliability coefficient of .73 was used to gather the data for the study. The t-test, one-way analysis of variance (ANOVA) and Pearson’s Product Moment Correlation were used. Results indicated significant gender and age differences in Internet usage; significant differences in social skills development, social tolerance and pattern of behaviour between Internet-users and non-users were observed. While a strong relationship was established between Internet usage and the social skills development. It was also observed that Internet usage negatively affected social skills development of youths.
Narimani et al. (2013) carried out a ‘Comparative Study on Mental Health and Aggression’ of the two groups of student's using and not using Internet. The studies on population of 120 subjects have been chosen by adopting the multistage cluster sampling procedure. A self constructed questionnaire (Ahvaz Aggression Scale) has been used to collect the data. T- test, two-way analysis of variance and Pearson correlation through the SPSS software have been used. The results showed a significant difference between the means of two groups (using Internet and not using) on mental health and aggression. The students using Internet have been observed with more unfavourable mental health and aggression control than the students of not using category.

Orose Leelakulthanit (2013) conducted a study on life satisfaction, psychological and spiritual characteristics, satisfaction with various domains of life, and the demographic characteristics of individuals living in Thailand. Adult Internet-users and non-Internet-users in Thailand were interviewed. Multiple regression analyses were applied. Results showed that the Internet-users were found to be more satisfied with their lives than the non- Internet users. Internet-users value optimism, personal health, and self positively whereas; consumption of goods was valued negatively. The non- Internet users’ value optimism, internal locus of control, and family positively, whereas, being moderate and social life were valued negatively. Furthermore, it was found that the Internet-users could live their lives in the way they valued, except for the aspect of the consumption of goods. Non-Internet users, on the other hand, felt that they were not able to live their lives in the way they valued, except for the aspect of family and social life.

Pavica Sheldon (2012) reported differences between users and non-users of social network sites on sensation seeking, life-position indicators, shyness, and loneliness. Using data from a survey of adults 19–76 years old, results revealed that compared to an average Face book user, a non-user is significantly older and scores higher on shyness and loneliness, is less socially active, and less prone to sensation seeking activities. Face book, has not been reported as a substitute channel of communication for those who are shy and lonely and lack face-to-face interactions.

Soudeh & Masoud (2011) compared the sensation seeking and five big factors of personality between Internet dependent and non-dependent users. A sample of 179 undergraduate students (109 female and 70 male) were selected from University of
Tehran using cluster sampling and based on upper and lower limits, 29 students from each group were investigated. IAT, SSS-V and NEO-PI-R were used as research tools. The findings revealed that sensation seeking of Internet dependents was significantly different from the non-dependents ones. The inter-net dependents showed significantly higher scores on subscales - Thrill and Adventure seeking, Non-inhibition and Boredom susceptibility as compared to non-dependents.

Sujatha (2011) analyzed the patterns of use of the Internet among 335 teachers and students of the five colleges in Mangalore city. The study investigated the level of academic community’s access to the Internet, reasons for non-use of Internet, satisfaction with the Internet facilities provided in these institutions as well as the problems faced in the use of the Internet. The study revealed that the level of student’s access to the Internet was low and the major reason was that at the time of the study, computers with Internet facilities were inadequate. The findings also revealed that the rate of Internet use was more among the teachers and students of Commerce and Science faculty as compared to the faculty of Arts. However, majority of the students expressed their interest in the use of the Internet and its resources and were enthusiastic in improving their skills in the use of the Internet.

Zarqa Ali (2011) aimed to find out the perception of male and female students regarding the role of the Internet in changing their relationships with the opposite sex, family members and anonymous people. As a matter of collective perception, students agreed that the Internet played a role in changing relationships with the opposite sex, family members and anonymous people; however, they expressed no opinion about the role of the Internet in increasing romantic relationships. The results revealed that the Internet has brought family members closer to each other, enhancing the unity among them and strengthening the family ties which have increased the sense of responsibility among youth. The perception of males and females was not significantly different from each other. However, the perception of users and non-users of the Internet was different. The non-users disagreed that the Internet had a role in changing relationships, while users were in agreement on its role in bringing change to youngsters’ relationships.

Elisabeth et al. (2009) showed that *Attitude* as a variable plays an important role in explaining the adoption and diffusion of new technologies. This study presents data from a 2007 telephone survey in Austria and describes the attitude structure of users
and non-users by means of a representative random sample (N=529). The tripartite
definition of attitudes serves as a useful heuristic in structuring the analysis. The
findings revealed the differences between users and non-users concerning their
attitude towards the Internet and new technologies. Age and level of education proved
to be major determinants of attitude patterns.

**John & Steven Martin (2009)** analyzed differences between Internet-users and non-
users. Researchers used a targeted module of IT-relevant questions added to the 2000,
2002, 2004 and 2006 samples in the General Social Survey (GSS) and devote
particular attention to the issue of whether Internet use is associated with more or less
diverse or ‘liberal’ political opinions and how these associations have changed since
2000. In general, the study found that i) differences between user and non-user seem
to exist and ii) Internet-users were more supportive on diverse and tolerant points, and
iii) Internet-users were consistent with the premise that going online is a way of
expressing openness to opposing points of view and new experiences. However, the
differences were often non-monotonic. Moreover, there were differences for some
racial/family/sexual/political attitudes but not on other patterns that do not fit easily
under standard labels such as liberal, conservative or even libertarian. Internet-users
also expressed slightly more optimistic and sociable attitudes on certain other GSS
questions. On most GSS items, difference could not found between Internet-users and
non-users.

**Shu Ching & Tung (2007)** investigated the difference between Internet addicts and
non-addicts in Taiwanese high schools, and focused specifically on their Internet
usage patterns, and gratification and communication pleasures. A sample 1708 high
school adolescents were drawn for data collection. 236 subjects 13.8% were identified
as addicts by using the eight-item Internet addiction Diagnostic Questionnaire
designed by Young. The results revealed that Internet addicts spent many hours online
than the non-addicts. Notably, surfing with a social/entertainment motivation and
gratification was positively correlated with Internet addiction. Furthermore, Internet
addicts obtained markedly higher overall PIUST scores and scored higher than non-
addicts on four subscales (tolerance; compulsive use and withdrawal; related
problems, including family, school, health, and other problems; interpersonal and
financial problems). While Internet addicts perceived the Internet to have significantly
more negative influences on daily routines, school performance, teacher and parental
relation than non-addicts, both Internet addicts and non-addicts viewed Internet use as enhancing peer relations. Moreover, students with personalities characterized by dependence, shyness, depression and low self-esteem had a high tendency to become addicted.

*Alan & Robinson (2002)* used survey data collected from the year 2000 General Social Survey (GSS). It included old questions on the extent of social visiting and new questions on the extent of social networks. The results provide little support to conclude that Internet-users and electronic mail users, with longer hour’s usability, prove less active or more constricted to social lives than non-users. Little evidence of reduced social contact in relation to levels of social visiting in comparison to 1998 or to earlier GSS surveys has also been established. No difference, in the overall visiting of lesser v/s greater v/s non-Internet-users has also been reported. Internet-users have been seen to spend more evenings with friends than nonusers and fewer evenings with relatives and neighbours. There was no decline in the number of people contacted by traditional communication channels among the respondents who contacted more people by email, or who used the Internet excessively. There was more evidence to support the Newtonian model of increased social life among Internet-users than the evidence of any displacement effect.

*Ofosu (2001)* compared the Internet-dependent and non-Internet-dependent university students regarding their perception about social support focusing on the factors like self-esteem, shyness, loneliness, gender and the level of dissociation. The Internet dependents showed more perceived social support than non-Internet dependents. This revealed that the Internet dependents felt more inclined towards the use of Internet. They were seen to search for the social support and were lacking in their conventional face to face relationships with their family and friends. The majority of the participants asserted that their Internet-based social interactions were not up to the mark and were less meaningful than their real life interactions. However, 10% respondents reported that their on-line interactions were better and more meaningful than their real life social interactions. Almost eighty five percent participants expressed that they preferred their off-line interactions to their Internet-based interactions. The researcher confirmed that there was a strong association between Internet-dependence and vice-versa. The respondents’ lack of social support from friends and family in the real life appeared the cause of their dependence on the
Internet. They expected perceived social support for compensation of the missing social support in their real life. Internet-dependents exhibited more shyness and were more conscious of self-esteem than the non-Internet dependents. Internet dependents expressed significantly more social loneliness than family or romantic loneliness as compared to non-Internet dependents. The male participants were more inclined in Internet dependence than female participants.

2.2 A) Studies on Internet and Life Style

Nasir Younis (2014) intended to assess the healthy lifestyle habits among Mosul University Students and examined the relationship between the university students’ characteristics and healthy lifestyles habits. Cross-sectional survey design was applied to assess the healthy lifestyle habits among Mosul University Students. Random sample consisted of 400 students (Male and Female) from Mosul University with specialty difference as ‘College of Medicine, College of Dentistry, College of Nursing, College of Pharmacy, College of Fine Arts, College of Education, College of Basic Education and College of Law’ from the end stage in University. Period of data collection was first December 2013 which extended to the terminal date of February 2014. An interview technique method was followed for the data collection. The data were analyzed through the application of the descriptive and inferential statistical data analysis. The results indicated that university students had a low score in the total healthy lifestyle habits, demonstrating females as higher than those of males.

Pramod & Raju (2014) carried out the study to i) find whether there exist any relationship between Problematic Internet usage and the general health and ii) find out whether there exists any significant difference between Internet-users in their Problematic Internet use on the basis of general health. For this purpose, the data were collected from 1093 Internet-users by administering Problematic Internet use Questionnaire and General Health Questionnaire. Correlation and one-way ANOVA and Pearson’s product-moment correlation statistical techniques were used. The results indicated the existence of a significant positive relationship between Problematic Internet use and the absence of general health. The one-way ANOVA results revealed that Problematic Internet use was found to be high among Internet-users with low general health.

Azizah et al. (2013) studied the impact of Internet addiction among Malaysian university students. Research methodology used in this study was by distributing
survey questions to 653 university students from five different universities in Malaysia. Four possible impacts were measured which included: Academic Performances, Relationships, Personality and Lifestyle. The findings showed that the Internet addiction cause problems with respondents’ academic performances, having bad personality and practicing an unhealthy lifestyle. There were significant differences in academic performance, personality and lifestyle between “Average user” and “Excessive user”.

Binnaz et al. (2013) examined the relationship between university students’ Internet use and loneliness and social self-efficacy. The sample of the study consists of 507 university students. To determine i) students’ degree of Internet use, Young’s (1998) ‘Internet addiction Scale’, by Bayraktar (2001), ii) the degree of loneliness ‘UCLA Loneliness Scale’ and iii) the degree of social self-efficacy, Smith- Betz’s (2000) ‘Social Self-efficacy Perception Scale adapted by Turkish Palanci (2002) were used. The results suggested a meaningful relationship between Internet use and loneliness scores. However, no relationship was observed with the social self-efficacy scores. On the other hand, it has been found that students with a higher score on Internet use have a higher degree of loneliness when compared to students with moderate and low degree of Internet use.

Chih Hung et al. (2013) aimed to examine the temporal relationship between problematic Internet use (PIU) and lifestyle changes during the first year among college youth. Cross-lagged analysis of panel survey data collected from Taiwanese college youth (387 males and 370 females) was applied. Structural equation modelling was adopted to test several nested cross-lagged relationship models. The results showed that four measures of lifestyle changes and PIU were moderately to highly stable across one year. Moreover, PIU in freshman year predicted negative changes in lifestyle in the subsequent year, which included reduction of physical and social activities, irregular diet and unhealthy sleep. Lifestyle changes in freshman year, in contrast, did not predict PIU in subsequent year.

Cynthia Shuster et al. (2013) explored the development of online, technology-based, nutrition, health, and fitness education challenges using social media as a means of helping users to develop healthy lifestyle changes. Participants completed pre assessments and post assessments to determine overall program impact and to self-report perceptions of knowledge gained and practice/behaviour change. Results
indicated that participants gained knowledge on nutrition, health and fitness topics while making strides towards lifestyle changes and adoption of healthy habits. It was also observed that although healthier eating habits were developed yet physical activity was increased with many participants losing weight. Ease of participating was the most reported reason for participating in the challenges.

**Derbshire et al. (2013)** evaluated the problematic Internet use and associated risks in college students. A sample of 2108 college students (56.9% female) was examined using a self-report Internet survey concerning demographic characteristics, Internet use, health behaviour, psychosocial functioning, and psychiatric co-morbidities. The IAT was used to determine the levels of problematic Internet use (limited / none or almost no use), mild use (typical user), moderate use (occasional problems) and severe use (frequent, serious problems)) and the MINI for testing for psychiatric problems. Results revealed that 237 students (12.9%) met criteria for limited Internet use, 1502 (81.8%) for mild Internet use and 98 (5.3%) for moderate to severe Internet use. Variables have been seen significantly associated with greater frequency of Internet use including lower grade point, average, less frequent exercise, higher PHQ scores (indicative of greater depression symptoms) and higher perceived stress scores.

**Karl Peltzer et al. (2013)** determined the associations between heavy Internet use and health-promoting behaviour, health risk behaviour and health outcomes among university students. The sample included 860 undergraduate university students chosen at random from University in Thailand. Of the participants, 27.3% were male and 72.7% were female in the age range of 18–25 years. Overall, students spent on average, 5.3 hours per day on the Internet, and 35.3% engaged in heavy Internet use (6 or more hours per day). In multivariate logistic regression, adjusting for socio demographics, lack of dental check-ups, three health risk behaviours (sedentary lifestyle, illicit drug use and gambling) and three health outcomes [being underweight, overweight or obese and having screened positive for post-traumatic stress disorder (PTSD)] were found to be associated with heavy Internet use.

**Rozita Jamili et al. (2013)** explored the perspectives about the effects of Internet usage on students’ personal and social behaviours along with the impact of these usages on their academic performance. To explore students’ Internet usage behaviours and predicting outliers in student’s community, investigators developed Web based data mining tool named Education Data Miner (EDMiner). This research study was
conducted with a sample of 5210 students from one engineering college in India during 36 months continually. The primary focus of this study was to extract Internet usage pattern of students by exploring proxy server access log files. These patterns were then used for identifying outliers in students’ community by using clustering methods of factor analysis. Further, the relationship between Internet usage behaviours and various Academic and Non-academic activities were explored. Results revealed that 35 percent belongs to Websites under Extra-Curricular category. Whereas in case of curricular Websites, the results reported to be 24 percent. Moreover, results show higher average time spent on Internet results non-participation in other activities. This non-participation in other activities may prove to be an indicator for loneliness of these individuals.

Vasilis Gialamas et al. (2013) investigated students' perceptions about the impact of Internet usage on their learning and future jobs. The sample consisted of 448 students from the Early Childhood and Primary Education Departments at the National University of Athens, in Greece. Results showed that most of the students believe that Internet use in university study makes learning more interesting and effective, and that possessing Internet skills will assist their future job prospects. Results further shown that the more the years of digital experience and the higher the frequency of Internet usage, the more positive were students' perceptions regarding Internet's impact on their learning and future jobs. More years of digital experience resulted in less perceived complexity.

Ilknur & Yildirm (2012) examined the relation between problematic Internet use and healthy lifestyle behaviours among a sample of 1000 students from seven high schools in Sivas, Turkey. Data were collected using the problematic Internet usage scale and health promotion lifestyle profile. Results revealed that among male students, levels of problematic Internet use were significantly high in individuals using the Internet every day, those connecting to the Internet at home and those who use the Internet at least 5 hrs a day. Even though a weak negative correlation between problematic Internet use and healthy lifestyle behaviours was observed, gender and daily Internet use time also appeared to affect healthy lifestyle behaviours.

Keshtiaray & Akbarian (2012) qualitatively assessed the Internet users’ experiences of cultural changes. The type of method is phenomenological. Research participants were 14 university students from Khorasgan Islamic Azad University with intensity
case sampling. The subjects were introduced by the administrator of the Internet site. Data collection was conducted through a semi-structured interview and the same were analyzed by Colaizzi 7-step method. Findings of this study, after excluding common codes, included 236 concept codes that represented the experiences of participants in this study. These are classified in three main themes as: 1- Change of Values such as Opinions, Beliefs and Morality ("Change of Beliefs" and "Lack of the Observation of Moral Laws"), 2- Norm Change ("Life Style Changing" that come from Change of Tasks Doing Way, Change of Communication Way, Accelerate of knowledge exchanging and Social Participation Changing and "Change of Identity" that come from False Freedom and Corruption, Distrust, Social Change and Change of Wearing Mode) and 3-A Change in Verbal Symbols ("Influence of English Words in Farsi" and "Getting Loan Terms from the Internet"). These findings indicate that students have acquired a lot of positive and negative experiences while using the Internet which have affected the norms, ideas, beliefs, ethics and verbal symbols showing cultural changes in the society which mostly affect the young.

**Ligang Wang et al. (2012)** explored the association between Internet use and adolescents’ lifestyles. With data from a cross-sectional survey conducted in China in 2009, a model revealing the effects of Internet use on adolescents’ lifestyles was established from a series of hierarchical regression analyses. Results shows that certain Internet habits, such as excessive online time, accessing the Internet in an Internet bar, and using the Internet for catharsis, are related to poor lifestyle habits in adolescents; however, using the Internet for purposes such as gaining knowledge and finding information positively predicts healthy lifestyles in adolescents.

**Rina Dave (2012)** carried out the research to find the habits of Internet-users (university student). Efforts are on to find the search requirements related to the use of the Internet information. Data were collected by using a questionnaire and follow-up interviews with Internet-users from students. It is revealed that the students are getting quality information through the Internet. They use the Internet in different ways, such as accessing to online journals, downloading software or text, chatting, discussion, E-mail services and for finding related references. It was unveiled that the Internet services are normally used for projects. Also it is observed that the Google and Yahoo search engines are more widely used compared to other search engines. The analysis reveals that majority of Internet-users always find useful information on the Internet.
and believed that quality information is available on the Internet and finally, the studied population use print, online and offline form of information for updating their subject knowledge.

Aysegul & Nevin Kilic (2011) aimed to find out the purpose and prevalence of the Internet usage among university students, and to study some individual variables such as personality factors, psychological symptoms and social support in relation to Internet addiction. In addition, the relationships between Internet addiction and demographical variables have been explored. The sample consisted of 1198 university students, 672 female and 525 male, from state and private universities in Istanbul and Ankara. Internet Addiction Scale, Big Five Personality Inventory, Social Support Inventory, Brief Symptom Inventory and demographical information form had been used as measurement devices. It has been found that the mean duration the students spent for Internet in a day is 1.53 hour; 18.89 percent of the students could be defined as Internet addict and male students were found to have higher addiction scores than female students. In addition, the students from higher SES were found to have higher Internet addiction scores than the students from lower SES. The regression analyses results showed that the daily time spent for Internet (duration) and using Internet for social interaction, being in higher SES, to have lower life satisfaction and lower self-control and to have higher neuroticism, anxiety and somatisation predict Internet addiction among university students.

Paulo Pinheiro et al. (2011) evaluated differences among people in the use of new information technologies as information source on Physical activities (PA), regarding their perceptions of benefits of an active lifestyle and characteristics of adequate physical activity to health improvement. The study included a randomly recruited sample of 879 subjects (53% males; 47% females), age 42.3±19.4 years old. A survey was designed to (1) identify main information sources; (2) relate perceived knowledge and PA information sources; (3) relate knowledge retention on adequate PA for health benefits and PA information sources; (4) relate perceived necessity of more information regarding PA and information sources and (5) relate PA levels and information sources. Results show that generically, groups show no statistical difference, regarding perceptions of the benefits of an active lifestyle and characteristics of adequate physical activity, so, new information technologies exposure do not change significantly knowledge on physical activity/health relation.
This result should promote a reflection regarding what kind of information and technology should be considered, to increase active lifestyle adherence.

Richard Belanger et al. (2011) examined the relationship between different Internet-use intensities and adolescent mental and somatic health. Data were drawn from the 2002 Swiss Multicenter Adolescent Survey on Health, a nationally representative survey of adolescents aged 16 to 20 years in post-mandatory school. From a self-administered anonymous questionnaire, 3906 adolescent boys and 3305 girls were categorized into 4 groups according to their intensity of Internet use: Heavy Internet-users (HIUs; >2 hours/day), regular Internet-users (RIUs; several days per week and ≤ 2 hours/day), occasional users (≤1 hour/week), and non-Internet-users (NIUs; no use in the previous month). Health factors examined were perceived health, depression, overweight, headaches and back pain, and insufficient sleep. In controlled multivariate analysis, using RIUs as a reference, HIUs of both genders were more likely to report higher depressive scores, whereas only male users were found at increased risk of overweight and female users at increased risk of insufficient sleep. Male NIUs and female NIUs and occasional users also were found at increased risk of higher depressive scores. Back-pain complaints were found predominantly among male NIUs. Study provides evidence of a U-shaped relationship between intensity of Internet use and poorer mental health of adolescents. In addition, HIUs were confirmed at increased risk for somatic health problems.

Shields & Kane (2011) evaluated the relationship between frequency of Internet use (and types of use) and several social and psychological variables, alcohol and drug use, and academic achievement among 215 students at an urban, commuter university. Results revealed that frequency of Internet use was not related to symptoms of depression, but three of the types of use (starting the day on the Internet, visiting news sites, viewing videos) reduced symptoms of depression. Internet use was generally related to more face-to-face interaction, suggesting that Internet use is used to augment rather than replace social interaction. However, the significant relationships between Internet use and quality of relationships with parents and significant others tended to be negative. These results are discussed in relation to “The Rich Get Richer” and the “Social Compensation” approaches. Binge drinking and drug use were related to Internet use that might be used to promote social activities. Visiting a sexually explicit web site was the exception, and suggests it could serve a purpose
similar to substance use. Grade point average (GPA) was both positively and negatively associated with specific types of Internet use, but the most surprising finding was a positive association between GPA and visiting sexually explicit sites. 

**Vida Fallahi (2011)** concentrated on the effects of Information and Communication Technology (ICT) on the youth behaviours. According to some studies people who have been using Internet more or in another word addicted to the net, are faced to the social isolation. To test the relationship between these two factors, ICT and social behaviour, a random sampling included 500 people were selected from the society of Shiraz University students. UCLA Loneliness Scale (Russell, 1996) and Young Scale for Internet addiction (Young, 1998) used for to data collection. The Results indicated that %13.2 of student's are addicted to the net and more result showed significant difference between differed users groups. Addicted group are more alone than other groups.

**Yair Hamburger & Hayat (2011)** analysed results from the World Internet Project, comprised of representative samples from 13 countries (22,002 participants). Thus creating an exceptional international representative sample. In order to achieve a comprehensive understanding of the Internet's influence over individuals' social lives; it is essential to consider the different types of social connections that might be influenced by the Internet. Influence of Internet use over social interactions in separate life domains (e.g. with family members; friends; colleagues). Analysis confirms that Internet usage can actually enhance the social lives of its users. Qualifications to the research are discussed while highlighting the different life domains in which we found significant correlations between Internet usage and increased social interactions.

**Ju, Sun (2009)** assessed students' Internet use behaviours and to determine the extent that Chinese college students' Internet use impact on their health and study. For this study, survey of college students that examines the nature of their Internet use is conducted. A statistic analysis about Chinese college students' Internet use behaviour is presented. The statistic results indicate that many college students in China used the Internet frequently and spent long hours online. The college students using Internet for entertainment has a large proportion in their Internet activities. College students use sex or violence Web-sites maybe have a significant impact on their health and study. A significant fact is that some students use Internet all-night, they are
infatuatedly online so that forget to eat and sleep. Some students are accustomed to using Internet by skip classes. These Internet use behaviour will seriously influence their study in campus.

Kim et al. (2009) examined the correlation of heavy Internet use and determine the associations of heavy Internet use with various health risk behaviours and health-promoting behaviours among Chinese adolescents, an anonymous, self-administered health behaviour questionnaire was completed by 2427 matriculates into a Hong Kong university (mean age=18.9 years) and returned at compulsory health examination. Of students, 14.8% reported heavy Internet use (>4h/day) and such use was associated with lower likelihood of engaging in health-promoting activities such as exercising and seeking medical care. At the same time, heavy Internet use was correlated with multiple risk behaviours such as skipping meals and sleeping late as well as poorer health outcomes such as higher likelihood of being overweight or having hypersomnia. Given the double burden of poorer health outcomes and less health-promoting behaviour, heavy Internet-users represent a particularly challenging group for adolescent health promotion.

Louis Leung (2009) carried out the exploratory research is to examine the inter-linkage among Internet connectedness, information literacy, and quality of life. Results based on a probability sample of 756 Internet users, found that Internet connectedness is not related to quality of life. However, there is a significant relationship between Internet connectedness and information literacy, and a strong link between information literacy and life quality.

Mohseni et al. (2008) investigated social isolation of Internet-users and type of their Internet use. There have been hopes and fears of the Internet’s social impact since it emerged. Among different social impact this study focuses on the impact of Internet on people’s social connection. The main question of this study is that whether Internet use affects people’s social ties? A sample of 204 cybercafe users in Tehran was nominated to participate in the survey. Results indicated 66% of respondents found friends on Internet and 50% have met these friends out of Internet. Time spent online during the day has a negative relationship with social isolation. Analyzing the findings, it is appeared that the both Internet use and social use of Internet will be slightly associated with reduced level of social isolation.
Neil Selwyn (2008) used survey data collected from 1222 undergraduate students studying at UK higher education institutions; this study addresses students’ engagement with the Internet as a source of academic information for their studies. In particular this study explores how academic use of the Internet is patterned by a range of potential influences such as students’ wider Internet use, access and expertise, their year of study, gender, age, ethnic and educational background. Results revealed that students’ academic Internet use is most strongly patterned along the lines of gender and subject-specialism rather than other individual characteristics or differences in technology access or expertise.

Gordon & Syed (2007) investigated the Internet use and well-being among college students, with focus on frequency of use. This study aimed to determine what students use the Internet for and how each of these affects their performance in college. A survey was performed on a representative sample of undergraduate students. This study identifies the top five types of Internet use reported by students in the sample. The five types identified were: emailing friends, getting help with school work, talking with friends, emailing family, and instant messaging. These uses did not differ significantly between genders. Frequency of Internet use was not found to be correlated with any of the well-being measures. It was found that the amount of time spent online was significantly associated with social anxiety. The findings in this study suggest that the specific type of Internet use relates to depression, social anxiety and family cohesion much more so than does frequency of use. It was also found that the Internet has become an important aspect of college students’ lives. It was revealed that students mainly used the Internet to email family and friends, IM, talk with friends, and get help with school work. This shows that students were drawn to the Internet primarily as a means of communication with friends and family.

Cam Escoffery et al. (2005) examined the Internet use, health-seeking behaviours, and attitudes related to the use of the Internet to obtain health information among college students. The authors surveyed 743 undergraduate students at 2 academic institutions. Results showed that 53% of the respondents indicated that they would like to get health information online, and 28% reported that they would like to attend a health program online. Overall, 74% of the students reported having ever received health information online, and more than 40% reported that they frequently searched the Internet for information. They used various search engines and multiple Web sites
to find health information. Issues related to the credibility of the information on health Web sites were crucial considerations for students. The study also found differences in Internet use for health information by gender and by level of Internet experience.

**Dennis & Moore (2004)** investigated the relationships between the levels of identity development, Internet use and social anxiety among a sample of 161 older adolescents/young adults aged between 18 and 25. Results indicated that, for males only, higher levels of social anxiety and less mature identity statuses were associated with more frequent Internet use, specifically time spent in chatrooms, online browsing for personal use, and games. For females (who were in this sample less socially anxious, more identity-developed, and lower users of the Internet than males), social anxiety and identity status were not significantly associated with time spent online.

**Itamar et al. (2003)** examined the benefits of a dialogue with Making Better Career Decisions MBCD, by analyzing 712 users’ perceptions of its contribution to their career decision-making process, and locating variables associated with these perceptions. A pre-dialogue and a post-dialogue questionnaire were used to collect the users’ perceptions of its benefits and measure the change in the degree of decidedness. Perceived benefit was derived from participants’ ratings of the degree of progress they had made in their career decision-making process, whether they had learned about additional factors to be considered and their career-related preferences, as well as their ratings of the quality of the list of “promising” career alternatives presented to them during their dialogue with MBCD. This composite perceived benefit was found to be positively associated with the users’ decidedness at the completion of the dialogue with Making Better Career Decisions MBCD. Users’ satisfaction with the length and variety of their personal “promising alternatives” list was associated with a higher perceived benefit.

**Samuel and Tatia Lee (2001)** determined the patterns of computer usage among adolescents and to examine whether computer usage is associated with less physical activity and social support among adolescents. 2110 secondary school students (52% boys and 48% girls) in Hong Kong completed a set of questionnaires to measure their computer usage and lifestyle. Mean age of the respondents was 14.16 years). Computer usage was taped by asking the students to indicate how much time (in minutes) they spent on the computer each day for doing homework assignments; playing computer games; “surfing” the Internet; and communicating with others. The
students also provided information on their social-physical lifestyle. T-tests and analysis of variance were used to examine group differences. Pearson product moment correlations were used to explore relationships between computer usage and lifestyle. Results revealed boys who use computers for doing homework, “surfing” the Internet, and communicating with others engage in more social-physical activities than others. Boys who use computers to play games tend to be more socially-behaviourally inactive. For girls, patterns of computer usage are not related to lifestyle. Computer users tended to engage in social-physical activities more frequently and had higher social support than nonusers. But among computer users, the amount of time spent daily on the computer was not associated with lifestyle. Instead, patterns of computer usage are more related to lifestyle and the relationship is moderated by gender.

2.2 (B). Studies on Internet and Attitude towards Research

Amadi & Ogunkunle (2014) determined the application of and preference for information and communication technology (ICT) among vocational education students in Niger Delta area of Nigeria. A structured questionnaire was administered to eighty students in the study area. Data was analyzed with the use of frequency, percentage and mean. The findings revealed that the application of and preference for information and communication technology was important in learning vocational education subjects. Approximately 90% of the respondents use World Wide Web (www) in their learning process. Also, 86.3% of the respondents use word processing in learning. The students use word processing for writing research projects and in taking notes in class. In the same vein, 81.3% of the respondents use a chat room for learning. Respondents agreed with the statement that ICT is used for writing research papers and agreed that Power point is useful in seminars and workshop presentations. Respondents also agreed that ICT is used for storing information based on speed and accuracy.

Abimbola & Airen (2013) investigated the influence of gender on the use of ICT among undergraduates in two university libraries in Nigeria. Undergraduates from three faculties were randomly selected to give a sample of 223, which is 30% fraction of the total population of 12,353. Questionnaire method was used for data collection. Results revealed that the undergraduates use ICT for the research purpose in addition to supportive course of study.
Bandele & Adebule (2013) investigated the patterns of graduate students’ attitude to research in order to have insight into how they carried out their research work. The study employed the research design of the survey type. A sample of three hundred and sixty students from three faculties, Education, Arts and Social Sciences was selected using stratified random and judgemental sampling techniques. A 35 item questionnaire tagged University Graduating Students’ Attitude towards Research Work (UGSATRW) served as instrument for data collection. The findings revealed that research work makes the students anxious, nervous, bored, and scared and that they would not have enrolled for the course if given opportunity. Also, the findings showed that, irrespective of type of gender and faculty of the students, a similarity in their pattern of attitude to research work. It can be concluded that almost all the graduating students had negative attitude towards research work.

Odede Israel (2013) investigated the attitudes of undergraduates in Delta and Edo states towards educational use of the Internet. The instrument used in collecting data was the questionnaire. 238 copies of the questionnaire were administered to the sample size which consists of undergraduates’ information science students in Delta and Edo states. The questionnaire contained 8 items that have been structured to elicit information representing the undergraduates’ attitude towards the educational use of the Internet since attitude are not directly observable, but can be inferred from responses given that show some state or disposition that has been engaged. The five items that met with the strongest agreement from the sampled undergraduates are ‘the Internet is as important as other research tools’ (91.6%), ‘using the Internet easier than using the library’ (91.2%), ‘Internet is a universal digital library’ (90.8%), ‘Internet can allow you to do more imaginative work’ (88.2%), ‘Internet has a potential to be an effective teaching/training tool’ (87.8%). This finding revealed that undergraduates have positive attitudes towards educational use of the Internet.

Ibegwan et al. (2012) examined the utilization of Internet by post graduate students for research. The citation analysis method was employed to discover the extent of Internet sources use in the Thesis and Dissertations (TDs) written and submitted to the MOUAU Library. Results revealed on the whole, a total number of 327 TDs was studied representing all the submissions from 22 departments of 6 different colleges in MOUAU offering Master and Doctor of Philosophy programmes from the year 2000 to 2010. It was observed that Internet use in the Thesis and Dissertations (TDs)
studied was poor and insignificant in comparison to other sources of information used by the postgraduate students.

**Thomas Babalis et al. (2012)** examined the relationship between research attitude and innovative-creative thinking, as well as, the differences among men and women. The results indicated in-significant differences between men and women in the innovative-creative thinking. On the other hand, significant differences revealed between men and women regarding research attitude. Conclusively, the women showed a more “conservative” attitude preferring works characterized by explicit instructions and clear goals, while men showed that they choose works in which they have the opportunity to make personal decisions, indicating a preference on non-integrated research works.

**Alison & Eisenberg (2011)** analysed college students’ everyday life information–seeking behaviour and is based on findings from 8,353 survey respondents on 25 U.S. college campuses. A large majority of respondents had looked for news and, to a slightly lesser extent, decision making information about purchases and health and wellness within the previous six months. Almost all the respondents used search engines, though students planning to purchase something were more likely to use search engines, and those looking for spiritual information were least likely to use search engines. Despite the widespread use of search engines, the process of filtering relevant from non–relevant search results was reportedly the most difficult part of everyday life research. As a whole, these students used a hybrid information–seeking strategy for meeting their everyday life information needs, turning to search engines almost as much as they did to friends and family.

**Chinwe Nwezeh (2010)** assessed the impact of Internet resources and the evaluation of their usefulness on teaching, learning and research among university students. This study is based on a descriptive survey using questionnaires for data collection. The respondents constitute students (750) and academic staff (115) from OAU. Descriptive statistics (frequency counts and percentages) were used to analyze the data. Findings revealed that a majority of the surveyed academic staff and the students found the Internet to be very useful. Internet resources mostly used by both groups were e-mail and the World Wide Web (WWW). Search interfaces were used for looking for research information. It was discovered that the users were not given adequate user education to enable them make use of the Internet resources available.
Kaan & Gozen (2010) investigated the factors affecting students’ attitudes towards participation in a scientific study based on their viewpoints. Data has been collected via a survey, which aims to gather information about the socio-demographic information of the individuals, the characteristics of the researcher, the characteristics of the assessment tool and the psychological traits of the individual, from a total of 86 students attending at Ankara University Faculty of Educational Sciences in the 2009-2010 academic years. The findings of the study reveal that there may be a relation between some variables and the university students’ attitudes towards participation in scientific studies.

Milan & Katerina (2010) focussed on students’ scientific competencies, measured their knowledge and provided questionnaires focussed on different aspects of life. This study based on the programme for International Student Assessment. One aspect was students' experience with information and communication technology (ICT). A secondary analysis of variance of the Czech Republic data (N=5,932 students) was conducted using the science knowledge test score and ICT familiarity items. The main result was that students who were connected in some way with ICT achieved better scores on the science knowledge test in comparison with students who were not. Furthermore, students whose ICT activity was connected with the educational process achieved a higher score in comparison with students whose ICT activity was not connected with the educational process.

Negahban Bagher (2010) assessed the extent of utilization and familiarity in accessing digital technologies of information among 97 post graduate students. The results revealed that in familiarity with accessing digital sources, more familiarity was found in journals on the Internet and less familiarity was observed for encyclopaedia on net, directories and yellow pages and digital libraries. The selected sample had more familiarity with book search and book shops on net, Internet relay chatting and email and less of teleconferencing on the net. Research scholars had higher familiarity with book search and book shops on the Internet than students.

Rehman Kashif et al. (2010) investigated Internet usage by students of the University, whether it is an effective learning tool for students and teachers and also examines the level of use Internet and whether the Internet is useful for distance learners. The sample of the data is taken from the universities of the twin cities (Islamabad and Rawalpindi). The quantitative technique for data analysis was SPSS.
The results revealed that most students find that the Internet knowledge is essential for students and teachers. Above all respondents in the questionnaire that students feel comfortable using the Internet and provides substantial information and half of those surveyed felt that Internet use is difficult in school. Results show that the Internet is easier to use then the collection of research tools, while the Internet is very important. **Biradar & Sampath (2008)** investigated Students and Faculties’ searching behaviour and the Internet use of search engines for retrieval of scholarly information. The study investigated the use of search engines, use of popular search engines, factor that influenced on search engines use, use of search strategy for information retrieval and also to know the methods of learning search strategy by students and faculties in the university background. 120 questionnaires were distributed to students and faculties of Kuvempu University, Shimoga. Of these, 100 users filled and returned the questionnaires. Equal number of students and faculties and also equal proportion of science and social science department’s respondents were considered for the study. 96% of faculties and 76% of students used Internet for different purposes. Many of the respondents reported that the information available on the Internet had proved to be a great asset and they responded that with Internet resources their professional competence were improved and they were abreast with the latest information. The most popular used search engines by students and faculties were Yahoo and Goggle. The factors influenced on the use of search engines were search engines popularity, more information and user friendliness. **Margam Madhusudhan (2008)** focused on the use of e-resources by 64 research scholars and students of Kurukshetra University. It was found that the e-resources could be good substitutes for conventional resources, if the access was fast, and more computer terminals were installed to provide fast access to e-resources. Google was the most widely used search engine for locating information electronically. **Khare et al. (2007)** examined to i) ascertain the knowledge of users about the Internet resources, ii) identify the popular search engines, iii) determine the level of their satisfaction with the services, and iv) suggest ways of providing better Internet services to users. Questionnaire was the methodology adopted for the study. A sample of 100 Ph.D. scholars representing 10 scholars from each of the ten faculties. It was found that 66% of research scholars use Internet and 34% were non users of Internet. Results revealed that the purposes of the users of Internet were educational, job
search, entertainment, communication and business. E-mail was the most commonly used Internet services and there were no users of TELNET and USENET service. Google, Yahoo, Web crawler were the most used search engines. The difficulties faced by research scholars in using the Internet were technical problems, language related problems and network related problems. Regarding the satisfaction with the information retrieved from the Internet, 42.42% users were of the view that retrieved information was not pin-pointed, 30.30% believed that information is sufficient, 19.7% believed that is not fully sufficient and 7.58% users believed that 50 retrieved information from the net was not sufficient for their research purpose.

Mahajan Preeti (2006) analysed the use of the Internet by the researchers at Punjab University, Chandigarh in all the three field of knowledge sciences, social sciences and humanities, so as to determine its influence on their academic life. 200 questionnaires were distributed, 80 researchers in sciences, 80 to researchers in social sciences and 40 to researchers in humanities. 80% of science researchers and 90% of social science researchers used Internet at their respective departments. But in the case of humanities researchers’ cyber cafes were the Internet accessing point. 90% of science, 30% of social science and 5% of humanities researchers use Internet for academic purpose. The study revealed that researchers in sciences are more positive about Internet use and its impact on their educational needs. All the science researchers had gone online to access information from the e-journals that were available through the university library whereas only 40% in the social sciences and 5% in humanities were using online journals. Researchers use electronic resources more than paper resources as they were confident to find resources through Internet rather than paper resources. The other purposes of using Internet were document delivery services, online job seeking, publishing research papers in e-journals etc. The majority of researchers in all fields who used Internet for accessing information use search engines like Yahoo, Google, Infoseek and AltaVista. Most (99%) of the science researchers and 50% of the social science researchers agreed that Internet had a positive impact on their study and research, while researchers in humanities did not agree with the above statement.

Oghenevwogaga et al. (2005) explored how students are increasingly using the Internet to support instruction and research needs in addition to heavy e-mail usage. A questionnaire was used to survey a sample of students about their Internet practices.
Finding revealed that students are now coming to university with more background in technology and the role of the Internet and other ICTs. The demand for Internet service will continue to grow and how the university should respond to meet this greater demand is the focus of this research. The extension of this research suggests more positive impact from the Internet in almost every aspect of academic life.

2.2. (C). Studies on Internet and Academic Achievement

Eshaghi Azizi (2014) who assessed relationship between Internet competency (IC) and academic achievement (AA) among science students in bachelor level with various combination of subjects. This was a correlation study with prediction and analytical research. A total of 254 science students in bachelor level of final year were drawn randomly from the four chosen. One college under each type: Private Aided College, Private Unaided College, Government College and Mysore University Constituent College. One of chosen using convenience sampling technique. The IC questionnaire prepared by the researcher employed to assess IC in total and component wise. The data analyzed using Pearson's Correlation Coefficient and Multiple Regression. The findings indicated that component of information search significantly and negatively correlated with AA of science students in bachelor level. Further results showed that in total there was no significant positive relationship between Internet competency (IC) and academic achievement (AA) of Science Students in Bachelor Level.

Fauzi et al. (2014) assessed the students durations spent on the Internet for academic and non-academic purposes based on a survey on 1675 students randomly selected from five different fields of study, viz. social sciences, sciences, and engineering, agriculture and computer sciences. On average, the participants accessed the Internet 4.48 hours per day. There were also significant differences in the time spent using the Internet among students in different fields of study, with computer science students spending more time online (5.61 hours per day) than the others. In terms of Internet use for academic purposes, students in social sciences, agriculture and computer sciences scored the highest. In an analysis involving all the students in this study, the total time on the Internet was found to be weakly correlated with the time spent online specifically for academic purposes. For social science students, a low but significant positive correlation existed between the overall time spent online and the time spent on the Internet for academic research. In a similar analysis carried out for science
students, a negative low correlation was observed. In the fields of agriculture, engineering and computer sciences, however, no correlation was found between Internet access duration and the use of the Internet for academic purposes. The very low correlations encountered above, even though statistically significant, showed that students who spent more time on the Internet did not make much greater use of it for academic purposes as compared with students who used the Internet less.  

Ibrahim & Mehmet (2014) analyzed the students’ academic performance by comparing the blended learning environment and traditional learning environment. The investigator intended to find whether there exists any significant difference in the academic achievement grade dispersions between male-female students. The study has been carried out in 2010-2011 academic year first semester biology courses. For the study, two quantitative courses sections have been selected among the classes formed by secondary school senior students. Cluster analysis has been conducted to provide the objectivity when forming the experiment and control groups. The study has been conducted with 54 participants, 19 males and 8 females for the experiment group and 18 males and 9 females for the control group. The experiment group continued its education in blended learning environment and the control group continued its education in traditional learning environment. The created learning environments have focused the genetics topic of the biology course and lasted for 6 weeks. During the study, pre-test and final-test have been used for the academic achievement analysis. The results revealed that a significant difference could not be found between the two groups at the end of the pre-test applied to experiment and control groups. Besides, in accordance with the averages of the final test grades, the experiment group has been found to be more successful than the control group. In both the learning environments, female students have turned out to be more successful than the male ones.  

Magwa Simuforosa (2013) provided an overview of the impact of modern technology on the educational attainment of adolescents. The purpose was to examine the relationship between adolescent usage of computers and academic performance. Within the qualitative research the case study design was adopted. Interviews and focus group discussions were the primary tools used to gather data. The study found out that modern technology impacts learning both positively and negatively.
Sunday Paul (2013) investigated the relationship between Internet browsing and students’ achievement in Agricultural Science. A sample of 300 students was drawn from 10 schools from the five local government areas of Ogbomoso. Internet Browsing Pattern Questionnaire (IBPQ) and Agricultural Achievement Test (AAT) were used to collect data. Cronbach alpha correlation coefficient of 0.807 (IBPQ) and 0.9531 (AAT) were estimated for the instruments. Four research questions were answered. Descriptive statistics and Pearson product moment correlation were used to analyze data. Results revealed that majority of the students have access to the Internet. Most of the students that have access to the Internet browse more for non-educative information (socio-networking sites). The relationship between Internet browsing and students’ achievement in Agricultural Science through positive are not significant.

Anomo & Oyenuga (2012) determined the impact of the use of Internet on technical college vocational students’ academic performance, Nigeria. The purpose of the study among other things focuses on identifying the attitudes of students toward the use of Internet; to determine the purpose of Internet usage by students; to find out the intensity of Internet usage by students and to find out whether the use of Internet improves the academic performance of students or not. Survey method was adopted. Data were collected from one hundred and forty (140) technical college students in seven (7) technical colleges, Nigeria. Means and standard deviation were used to answer the research questions. Interviews were also conducted with students to compliment the data collected. The findings of the study reveals that most of the secondary school students access computer connected to the Internet through the use of the cyber cafe or settings open to the public; the students spend more of their time outside the school and their homes to use the Internet; female students are more disposed to the use of the Internet for social networking than their male counterparts; most of the special sites students visit on the Internet are not for academic engagements or school work; most of the devices used are connected to the Internet through the use of modem and the use of Internet technology show significant relationship with students academic achievement and it motivates the students to get along with schoolwork.

Horzum & Mehmet Baris (2012) determined the effect of web based instruction on students' web pedagogical content knowledge, academic achievement and the general satisfaction of the course. The study was planned and completed according to pre test
and post test with control group experimental design. The study was carried out on 29 students. The web content knowledge of the students in both group showed significant change after the experimental procedure. The web pedagogical content knowledge and the attitudes towards web based instruction of the experiment group were found to be higher than control group after the course. Also the academic achievement of experiment group was higher than control group and there was no difference in course satisfaction.

Ela Goyal et al. (2011) examined the satisfaction and usability of Internet usage on students’ assignment completion tasks and their performance. Using the extended task-technology fit (TTF) model. In the extended TTF model, technology resistance and technology usage was also considered. The study was conducted at a management institute in Mumbai and questionnaires were distributed to 221 post-graduate students. The results indicate that technology satisfaction and the Internet usage significantly explains the variance on students’ performance. Task-technology fit is the predictor for Internet usage, whereas it is not a predictor for technology resistance. Technology Satisfaction is the predictor of Technology resistance, student’s performance and Internet usage. Internet usage is the predictor of Technology satisfaction and student’s performance. Since these factors are found to have a significant relationship with students’ performance, the management and decision makers in universities and institutes need to give higher importance as to how students could use the Internet efficiently and effectively.

Scott et al. (2011) carried out an empirical investigation of the academic performance and the web-usage pattern of 2153 undergraduate students. Data from university proxy logs allows us to examine usage patterns and compared this data to the students’ academic performance. The results showed a small but significant (both statistically and educationally) association between heavier web browsing and poorer academic results (lower average mark, higher failure rates). In addition, among good students, the proportion of students who are relatively light users of the Internet is reported significantly greater than would be expected by chance.

Zainol Bidin et al. (2011) aimed to investigate the factors influencing students’ intention to use the Internet for academic purposes amongst 204 final year business students in public universities in Malaysia. This study integrated theory of planned behaviour (TPB) and theory of acceptance model (TAM) as the base model toward
that purpose. The research model employs the variables from both theories namely attitudes, subjective norms, perceived behavioural control, perceived usefulness, perceived ease of use, intention, and behaviour. A multiple regression analysis provides empirical support for the applicability of integration of TPB and TAM in predicting students’ intention to use the Internet for academic purposes. Results of the study showed that attitudes, perceived behavioural control, and perceived usefulness are statistically significant in influencing intention to use the Internet for academic purposes. It can be concluded that students’ intention to use the Internet for academic purposes could be predicted from their attitudes, perceived behavioural control, and perceived usefulness at 49% level.

Zhu Yu et al. (2011) investigated the relationship between vocational students' information seeking activities on the Internet, academic self-efficacy and academic performance. Researchers propose that academic self-efficacy (both mediates and moderates) has the relationship with Internet information seeking and academic performance. Using survey data from 295 vocational high school students. Results revealed that the positive effect of Internet information seeking to students' academic performance is mediated through academic self-efficacy. Academic self-efficacy, at the same time, moderates the relationship between Internet information seeking to academic performance such that students' with low academic self-efficacy benefit more from Internet information seeking in regard to their academic performance.

Ahmet Aypay (2010) examined the ICT usage and academic achievement of Turkish students in Programme for International Student Assessment (PISA) 2006 data. The sample of the study included 4942 students from 160 schools. Frequencies, independent samples t-tests, ANOVAs, Pearson correlation coefficients, exploratory factor analysis, and regression analysis were used. A high percentage of students reported that they had access to computers. From the exploratory factor analysis, two factors were emerged: Computer usage for software purposes and computer usage for entertainment and Internet purposes. The factors found to be reliable. There was no significant relationship found between students ICT skills and academic achievement. The Turkish students were found to be similar in the general PISA findings. SES and gender differences were found.

Fariborzi Khodadadi (2010) determined the relationship between the amount of Internet usage and academic achievement in higher Education in Iran. This research
was a descriptive Correlational study. The participants in this study were students who were studying in the second semester 2007/08 in the Islamic Azad University-Mashhad Branch in Iran. SPSS version 16 was used for analyzing the data of study. The validity and reliability (=0.83) of instrument were tested. The result indicates that there was no significant relationship between the amount of using Internet and the academic level of student. Also, there was no significant relationship between the amounts of using Internet by instructors in class presentations or conferences and his/her help to students to know how to use Internet in the course affairs, students’ tendency in competing, cooperation and participation in academic discussion with the amount of using Internet. However, there was a positive relationship between their attitude towards the effects of using database and digital library in learning the course content with the amount of using Internet. Finally, the finding displays there were not significant differences about the academic achievement between students who use Internet for learning the course and students who did not. The study reveals that maybe students who use Internet, they spent time for doing other tasks than the course.

**Shamimul & Hasan Fouj (2010)** explored the relationship between ICT and the performance of students at the undergraduate level. The research sample was taken from a group of undergraduate students studying BBA at ASA University Bangladesh (ASAUB). The study found that the impact of ICT on the academic performance of the students was very negligible. The findings also reveal that majority of the students are in the dark about the potential role of ICT in their academic life. Moreover it has been found in the research that the ICT access provided to the students are not utilized to enhance academic performance but it is rather a source of recreation.

**Adel & Mounir (2008)** examined the relationship between the use of information and communication technologies (ICT) and student performance in higher education. This study aims to summarise the main findings of the literature and to give two complementary explanations. The first explanation focuses on the indirect effects of ICT on standard explanatory factors. Since a student’s performance is mainly explained by a student’s characteristics, educational environment and teachers’ characteristics, ICT may have an impact on these determinants and consequently the outcome of education. The differences observed in students’ performance are thus more related to the differentiated impact of ICT on standard explanatory factors. The
second hypothesis advocates that ICT uses need a change in the organisation of higher education. While ICT equipment and use rates are growing very fast in the European Union, the adoption of complementary organisational designs is very slow and differs from one institution to another. This may explain the observed differences in students’ achievement.

Alodied et al. (2008) explored the extent and effects of Intranet use on Ajman University students' achievement and self-confidence. This study used the quantitative method. Fifty-eight male and female students taking the Modern Education Technology course at Ajman University participated; 29 of them were put into the control group, and the other half in the experiment group. The study found that experiment group used the Intranet and more often than the traditional group. Students in the control group and the experimental group had a positive, high level of confidence in all items. Also, the study found that there was no significant difference in achievement based on the number of hours spent using the intranet; also, there is no significant difference in self-confidence or achievement between male and female students in the control group. In addition, the study found a weak correlation between self-confidence and achievement.

Chen & Peng (2008) examined the relationships between university students’ Internet use and students’ academic performance, interpersonal relationships, psychosocial adjustment, and self-evaluation. The study was based on data drawn from a national survey of college students in Taiwan. A stratified sample of 49,609 students (2005-2006 academic year juniors) was randomly selected from 156 universities (174,277 students). Students completed a questionnaire online. The results show that Heavy Internet-users and non heavy Internet-users differed significantly on a number of dimensions. Non heavy users had better relationships with administrative staff, academic grades, and learning satisfaction than heavy Internet users. Heavy users were more likely to be depressed, physically ill, lonely, and introverted than non-heavy Internet-users.

Yavuz et al. (2008) investigated the factors that affect learners’ academic achievement and attitudes in web based education. 127 students enrolled in the e-MBA Masters Degree of Bilgi University constituted the study group of the research. A survey method was used for the study and the data were collected by a Demographic Information Questionnaire and Web Based Education Attitudes Scale
was administered to the e-MBA students. Then, the e-MBA Degree average course grades (GPA) were obtained from the department to determine academic achievement of the students. Results revealed that web based education have positive effects on the improvement of academic achievement. The effect of web based education on attitude toward learning suggested that web use had positive effects mainly on motivation for learning and interested in the lessons.

Qiping et al. (2007) analysed the performance of two groups of students studying in the traditional mode and the online mode in a master’s program delivered by a Department of Computing at a university in Hong Kong. Over 2,000 students have participated in the study between 2000 and 2004. This study includes a comparison of the results between different delivery modes of study each year as well as between different classes over the 4-year period. Although traditional mode students have achieved a slightly better performance in examinations in comparison to online mode students, the research concluded with insignificant differences in overall performance among the students.

Kubey & Barrows (2001) intended to i) to find out the evidence which support the prevalence of Internet dependency among college students ii) ascertain whether Internet dependency is associated with self-reported academic problems. The study was conducted on students (N = 572) at Rutgers University who completed a 43-item questionnaire about their Internet use, study habits, academic performance and personality. 53 students (9%) reported that they might have become “a little psychologically dependent on the Internet” and could be considered Internet dependent; 80 students (14%) reported that their “schoolwork had been hurt” because of time spent online and could be regarded as experiencing Internet-related academic problems. Results further revealed Internet-dependent students were more likely to experience Internet-related academic problems than students who were not dependent on the Internet. In addition, Internet-dependent students reported spending significantly more time online as compared to students who were not Internet-dependent and students with Internet-related academic problems reported spending significantly more time online as compared to the total sample. Furthermore, students with academic problems reported that they stayed up late, felt tired on the next day and missed class due to their use of the Internet. While female students accounted for
two-thirds of the sample, male participants made up almost half (49%) of the Internet-dependent group.

Norshuhada Shiratuddin (2001) determined the effect of Internet instructional method on students’ performance; two groups of unrelated students over a period of two semesters in Multimedia Design course offered at the School of IT, University Malaysia were used as samples. One group was taught with conventional teaching method and the other with Internet based electronic book. As this was a first attempt in deploying Internet in teaching environment, it was primarily employed as educational means of web courses and supplements to courses. This study reports a personal experience and a case study of implementing Internet based electronic book and the effect it has on students’ performance in the course. Through hypotheses testing, it is conclude that employing Internet in educational settings proves to have significant effect on students’ performance.

2.2. (D). Studies on Internet and Gender Differences

Amanda et al. (2013) who carried out the research to take a contemporary look at the gender differences. Using an online survey, investigators asked participants about their experiences with multiple forms of mediated communication: social networking sites, e-mail, video calls, instant messaging, texting, and phone calls. Results indicated that women, compared to men, are generally more frequent mediated communication users. Compared to men, women prefer and more frequently use text messaging, social media, and online video calls.

Ann & Maltby (2013) analysed the impact of the Internet on men’s and women’s lives. A content analysis of 200 postings from men and 200 from women, on the topic of “has the Internet changed your life” invited by a news website, was undertaken then examined for gender differences. Results showed more women’s postings mentioned having made new friends or having met their partner, renewing old friendships, accessing information and advice, studying online, and shopping and booking travel online, while more men’s postings mentioned that the Internet had helped or given them a career, positive socio-political effects, and negative aspects of the technology. The results are interpreted as supporting the view that the Internet represents an extension of broader social roles and interests in the “offline” world.

Chih-Hung & Gwung (2013) expressed the effect on the interpersonal relationships in terms of peer, parent–child, teacher–student, and net-friend from the gender
difference and various Internet usage perspectives. Data were gathered from 444 college students for structural equation modelling analysis. The results of this study revealed that Internet usage on social interaction and information seeking can positively affect all kinds of interpersonal relationships. Online game playing can enhance net-friend relationship, but is harmful to teacher–student relationship. Surprisingly, video watching can positively affect peer and parent–child relationships. Besides, through the intermediation of higher game playing, males have lower extent of teacher–student relationship and higher level of net-friend relationship. Contrarily, through the intermediation of lower video watching, males have lower extent of peer relationship and parent–child relationship.

Patrick et al. (2013) attempted to study the gender differences in urban adolescents Internet access, usage and motives. Data were collected from 914 students in Malaysia. Factor analysis revealed that eroticism, entertainment, social–interaction, shopping and information/surveillance are the key drivers for adolescence Internet usage. No differences between boys and girls were detected in Internet accessibility and home computer ownership. Boys and girls differed in their intensity of usage, place of access and their motivations to use the Internet. Girls were more motivated by social–interaction, shopping and surveillance/ information, while boys were more motivated by eroticism and had a higher tendency to be addicted to the Internet. However, boys and girls did not exhibit any significant differences in online entertainment motivation.

Anna Bujala (2012) carried out the research based on the Polish edition of the World Internet Project 2011 indicate gender differences both in the intensity of Internet usage and the ways in which it is used. Women spend less time online, have shorter experience online, and express less openness towards online relationships or services. The main gender difference in the kinds of activities undertaken online concerns entertainment-men engage much more often in activities such as playing games, listening to music or the radio, watching films, or looking for humorous content than women do. Having said that, it should be noted that the differences are not dramatic, indicating the small size of the “gender gap” among Polish Internet users.

Tao Hu et al. (2012) attempted to study the gender differences among college students in their usage perceptions of the Internet. A multiple-variable logistic model was proposed and tested using data gathered from 805 college students. The results of
the study suggest gender differences in usage perceptions of the Internet can be detected among college students. Specifically, the differences are reflected in that male college students have a higher level of perceptions of Internet self-efficacy, experience, and information overload than females.

**Yousef Eyadat (2012)** determined the level of Internet use as it varies by gender among university students in Jordan. A random sample of 278 students from one university of Jordan. Results of the study indicated that university students under study experienced excessive use of the Internet as indicated by the overall mean value and the results indicated that the university students under excessive use of the Internet neglect household responsibilities and neglect exams and courses to spend more time online. Results also indicated that there were no significant differences in the excessive use of the Internet based on differences in gender.

**Christy & Lee (2011)** explored the gender differences in student acceptance of an Internet-based learning medium (ILM). Specifically, the gender differences in the relative impact of both extrinsic and intrinsic motivations, as well as the social influence on student acceptance of an ILM. A total of 504 students participated in this study. Results revealed that attitude has the strongest direct effect on behavioural intention for both male and female students. Perceived usefulness influences attitude and behavioural intention to use an ILM more strongly for male students than it influences female students, whilst subjective norm is a more important factor determining female students’ intention to use an ILM than it is for male students.

**Loan, F.A. (2011)** identified the gender variability in the Internet use of college students. The stratified sampling technique was employed to select students and data was collected via a questionnaire. The study confirms the existence of gender differences in the Internet use of the college students. However, the differences are slight for most uses. In comparison, more male students are frequent users of Internet than females. Female students use the Internet more than males for information and education whereas male students use the Internet more than females for communication and entertainment. Neither male nor female students record high use the Internet sources like online libraries, databases, e-books, e-journals, wikis, and blogs. The study also finds that both male and female students face problems like information overload and information pollution while searching the Internet, though
Review of the Related Literature

with slight variations. Finally, the problem of Internet illiteracy is found to be more common in female students than in their male counterparts.

Wong Su et al. (2008) carried out to investigate the gender disparity in Internet usage and the attitudes among 152 student teachers (80 females and 72 males) at a public Malaysian university. Results revealed no gender disparity in Internet usage; the female student teachers were found to spend as much time using the Internet as their male counterparts. The results also revealed that the students exhibited positive attitudes toward the Internet regardless of gender.

Alan & Zsolt (2005) analysed the gender experiences of computer self efficacy, computer anxiety and attitudes towards the Internet. Seventy-four female and 76 male Romanian university students, from a wide mixture of courses, completed a Computer Self Efficacy Scale, a Computer Anxiety Scale, and an attitude to the Internet Scale and gave information about their use of the Internet. Significant zero order correlations were obtained with the relationships being between higher computer self efficacy, lower computer anxiety, more positive attitudes towards the Internet and longer reported use of the Internet. Significant gender effects were found throughout, with males tending to report greater computer self efficacy, lower computer anxiety, more positive attitudes towards the Internet and longer use of the Internet than females. However, regression analysis indicated Internet experience (use) was the only variable independently linked to gender.

Ann Brit (2005) investigated how attitudes towards the Internet technology differ between boys and girls, and how this affects their critical approach when seeking information. The approach is ethnographic, and the material was collected by means of observations, conversations, questionnaires, interviews, computer logs and reading documents. The analyses were made with the help of software for qualitative analysis, where all sentences both from interviews and field notes were coded. Some analyses were strictly quantitative and compared data from coded qualitative material with questionnaires and computer logs in a database sheet. Others were of qualitative nature and based on selected material from the coded texts. Results indicated that it cannot be seen that boys and girls have different interests in the Internet technology in practice. But boys talk about their knowledge to a greater extent, and this interplays with their reflections about the Internet's reliability.
Richard Joiner et al. (2005) investigated the effects of gender, Internet anxiety, and Internet identification on use of the Internet. The study involved 608 undergraduate students (490 females and 118 males). Researchers surveyed the students' experience with the Internet, as well as their levels of Internet anxiety and Internet identification. Results revealed gender differences in participants' use of the Internet. Males were proportionally more likely to have their own web page than were females. They used the Internet more than females; in particular, they were more likely to use game websites, to use other specialist websites, and to download material from the Internet. However, females did not use the Internet for communication more than males. There was a significant positive relationship between Internet identification and total use of the Internet, and a significant negative relationship between Internet anxiety and total use of the Internet. Controlling for Internet identification and Internet anxiety, study found a significant and negative correlation between gender and use of the Internet.

Madell & Muncer (2004) determined whether or not a gender difference exists in the Internet use activity and to inform later studies of more specific aspects of this activity among the English secondary school students. 1300 students aged between 11 and 16 years old, were selected for the study. Among the respondents 50.5% were males and 49.1% were females. Questionnaires were distributed to the respondents for collecting data. In gender wise distribution 85.7% males and 80.2% females had used Internet. Respondents who were not using Internet stated that lack of access to Internet facility, lack of interest or motivation, lack of knowledge about how to use the Internet, cost of computer hardware and software and lack of time. For non-usage of Internet by gender wise distribution, girls were more likely to give the reason, “no one in house hold knows how to use it” than boys. In the use of E-mail, there was not a significant difference between the genders. However males were significantly more likely than females to use the Internet for the www. With regard to gender differences, it was found that the number of hours per week that males used the Internet was significantly higher than the number that females used it. Boys were more likely than girls to use the Internet for playing or downloading music, browsing to find out information about goods and services, buying or ordering goods, tickets or services, down loading software, including games and also using the net for accessing government or official services. However girls used the Internet more than boys for using E-mail, finding information related to education and using chat rooms or sites. There were significant
gender differences in finding out about new web sites/web pages via hyperlinks from other web pages, from Internet search engines and from Internet directories. Boys were more likely to use these methods than girls. More boys than girls were using Internet. But girls were more confused than boys while using Internet. Males did not perceive the Internet to be any more important in their lives than females.

Eric Weiser (2000) assessed the gender differences in specific uses of the Internet. The survey included 19 items and was made available to Internet users. For comparison, a paper-and-pencil version was administered to several hundred introductory psychology students. Numerous gender differences in preferences for specific Internet applications emerged. Results showed that males use the Internet mainly for purposes related to entertainment and leisure, whereas women use it primarily for interpersonal communication and educational assistance. However, additional analyses showed that several gender differences were mediated by differences in age and Internet experience.

Odell et al. (2000) used survey data collected from college students of institutions of higher learning in Georgia, considers these questions: (1) Has the gender gap in Internet use narrowed among college students to the same extent as it has in the general adult population? (2) Do female students differ from males in how they spend their time on the Internet? (3) Does family income, parental education or type of college influence female college students' use of the Internet? Results indicate that while the gender gap in use of the Internet has nearly closed, differences still remain in how male and female undergraduates use the Internet.

2.3. Studies on Related Variables

Abdullah et al. (2014) investigated 210 Jordanian English as a foreign language (EFL) student’ perceptions use of the Internet for both general purposes (e.g., e-mail, chat, aimless browsing, games, and music) and EFL learning purposes (e.g., practicing various language skills, vocabulary, and structure through instructional software). The findings revealed that 47% of the sample reported using browsers to view documents, while slightly smaller percentages reported using the Internet for personal purposes, mailing lists and discussion groups, and e-mail. Furthermore, the majority of the respondents reported never or rarely using the Internet for any EFL learning purposes, except for 58% and 52% respondents, who reported using it for developing speaking skills through chat and locating authentic texts, respectively. The
findings further revealed a low correlation between the students’ use of the Internet for general and EFL learning purposes. Class level, but not gender, was found to significantly affect the students’ use of the Internet.

Bahman et al. (2014) noticed the amount of Internet usage and its effective factors among high school students of Khafr County (Fars Province) in the educational year of 2009-2010. The population of this descriptive survey research included all the male and female students of Khafr County. The sample of this study included 340 students of which 153 were males and 187 were females. To describe, categorize, and summarize the data, descriptive statistics that included simple frequency distribution tables were used and to investigate the hypotheses and theoretical model testing of the study, referential statistics of Kendall tau correlation coefficient was used. The results showed that the students used Internet in so many cases and that there is significant relationship between Internet dependence and educational downfall, leisure time, communicating with others, tendency to aggression, social isolation, and life satisfaction.

Shabana et al. (2014) focused on the trends of using Internet by the students of Sargodha University. It also examined the gender difference regarding Internet usage. The sample of the data was taken from the University of Sargodha. A survey of 252 students both male and female was randomly selected to participate in the study. The result of the study showed that most of the students of university consider Internet as a tool for information. They use it for study purposes. They think that Internet is an easier way to get information then library.

Razaque et al. (2013) examined the 200 students and the result revealed that, 36.5% of the students use Internet for entertainment. While 42.2% of the respondents use Facebook. However, 65.5% use Google website for searching the articles, reports and other material for their class assignments. The use of Facebook result showed that 42.2% of the respondents use Facebook. The result revealed that most of the students use Internet for entertainments and obtaining the information for making their assignments of the class.

Jalalinejad et al. (2012) investigated the prevalence of Internet addiction among the girls and boys university students and also the relationship between Internet addictions with anxiety. Participants were 330 students who randomly selected from different universities. The Questionnaires of Internet addiction and anxiety scale were
Review of the Related Literature

used as instruments for data collection in this study. The data were analyzed using mean, standard deviation, t-test and regression analysis. The results of this study demonstrated that prevalence of Internet addiction among boys' were more than girls and in science and engineering students were more than arts and humanities students. There was a significant difference among these four groups in anxieties.

Ofodu Graceful Onovughe (2012) examined the Internet use and reading habits of higher institution students in Ekiti State. The study was conducted using a descriptive survey research method. The population for the study consisted of one state university, one private university and a federal polytechnic. The simple random sampling technique was used to select the sample that was used for the study. 266 first year students from higher institution were randomly selected. This cut across all disciplines ranging from arts to science to engineering and social sciences, inclusive of both sexes. The survey instrument was a questionnaire titled ‘Internet use and reading habits of higher institution students in Ekiti state’. All data were analyzed using simple percentages. Finding revealed that a large percentage of the respondents generally enjoy reading and it could be safely said that the reading culture of the students is favourable since the advent of Internet. It also reveals that large number respondents actually engage in activities that may not add value to their academic performance.

Ayyad, Khayrat (2011) compared the Internet usage vs. traditional media usage among university students of the University of Sharjah (UOS) in the United Arab Emirates. It adopts the ‘uses and gratification’ approach to explain how students are goal-oriented in their use of mass media and the Internet. A questionnaire was designed and tested on a sample of 270 students of the UOS. The questionnaire included 21 questions covering patterns of using traditional media (television, radio and newspapers) and the use of the Internet among students. Findings of the study show that patterns of exposure to mass media and new media among the students reflect the importance of the Internet in comparison to traditional media. All students access the Internet extensively and use it to gratify their personal needs, social needs and educational needs. Findings also show that the Internet has effects on students’ exposure to traditional media. This finding indicates that while the effect of the Internet on watching TV and reading newspapers is obvious, its effect on listening to radio is moderate. The Internet is seen as one of the most important mediums and a
threat to traditional mass media. As for the differences between male and female students, findings of the study show that the gender of students has an obvious affect on his/her usage of mass media and the Internet. As for the Internet, while the main reasons for accessing the Internet among male student are to communicate through e-mails and to follow up current affairs, female students use the Internet mostly to entertain themselves and to search for information related to their studies.

**Hatice Odaci (2011)** designed a study to assess whether academic self-efficacy and academic procrastination can act as predictors of problematic Internet use among university students. The study group consisted of 398 students attending education, medicine, architecture and economics programs at the Karadeniz Technical University in Turkey. The Problematic Internet Use Scale, Academic Self-efficacy Scale, Academic Procrastination Scale and a Personal Data Form were used as scaling instruments. Pearson’s correlation coefficient, multiple regression analysis, independent samples t-test and one-way ANOVA were used to analyze the data collected. The results show a significant negative correlation between academic self-efficacy and problematic Internet use, while the relation between problematic Internet use and academic procrastination was not statistically significant. Furthermore, academic self-efficacy was determined to be a significant predictor of problematic Internet use.

**Munur & Tugun (2011)** identified the university students’ Internet usages. It’s a type of descriptive study. This research has been existence about 169 students whose studying at Near East University. There are 35 questions to identify the student’s demographical profiles in this questionnaire. After the accumulation of this questionnaire the data has been coded and has been analysed by SPSS statistics programme. Also frequency analysis has been done for all variabilities. Results revealed that the huge percentage of the students is using the Internet for researching and no differences found between the university’s departments Internet usages.

**Silvia & Tsai (2011)** investigated the students’ perceptions of three aspects of learning collaboration, self-regulated learning (SRL), and information seeking (IS) in both Internet-based and traditional face-to-face learning contexts. A multi-dimensional questionnaire was designed to evaluate each aspect in terms of perceived capability, experience, and interest. The analyses explore (1) potential differences of students’ perceptions between Internet-based and face-to-face learning environments.
and (2) potential differences in the three aspects in relation to learners’ attributes and the use of the Internet and enrollment in online courses. This study surveyed students in a higher education institute who had had experiences with Internet-based and face-to-face learning. The results showed that students perceived higher levels of collaboration (capability only), SRL (capability and experience) and IS (capability, interest, and experience) in Internet-based learning than in traditional learning environments. In terms of students’ education level, graduate students perceived higher levels of capabilities and interests in some of the aspects, than undergraduate students. In addition, for Internet-based learning, significant differences in collaboration and SRL were found derived from time spent on the Internet related to learning; and students’ perceptions of collaboration, SRL, and IS were all positively correlated to students’ online course-taking experience.

Shakes (2010) studied the attitudes of students at the Islamic University of Bahawalpur, Pakistan towards learning through the Internet. A structured questionnaire was used for data collection. It was found that a vast majority of the students learnt how to use the Internet by themselves or with the assistance of their friends. The findings showed that their attitude towards the Internet was very positive and they used it mainly for study purpose. They used online databases, dictionaries, encyclopaedias and online courses. Google was the most popular search engine for retrieving information on the Internet.

Sudhier & Seethalekshmi (2011) examined the use of e-resources by the students and research scholars of Faculty of Arts in the University of Kerala. 127 questionnaires were distributed among the respondents from the six departments of the faculty of Arts, out of which 120 were returned. Results show that 56.67% of the respondents use Internet for educational purposes and 19.16% of respondents use Internet for checking e-mail. Google is the most preferred search engine for the most of the respondents. Yahoo is their second choice. The purpose for the use of e-resources revealed that 49.2% respondents use e-resources mainly for academic purposes, 27.5% respondents for seminar presentations and 11.7% use for project works. The study revealed that Internet resources are the most used e-resources among the respondents from the Arts Faculty.

Maharana et al. (2010) designed a study to find the necessity and usage of the Internet and e-resources by 91 students undertaking the master’s course in Business
Administration in Sambalpur University, Orissa, India. The investigation result showed that majority of the students have a long experience of using Internet for 2 – 4 years and all were more or less aware of the applications of Internet technology. More than half of the students surveyed in the study strongly felt that management study would be severely affected without the use of the Internet and e-resources.

Michael et al. (2008) aimed to assess the level of penetration of Internet usage among undergraduate students in Nigeria using Obafemi Awolowo University as a case study. Result showed that about 92% of undergraduate students have embraced the Internet and are using it consistently. The online mean time is 3.5hrs/week while on the average, undergraduate experience of Internet usage is about 4 years. Results revealed that the students use the Internet mostly for e-mail, information search and online chatting; all of these were found to have significant impact on their academics and social life. Further analysis revealed that gender attitude is also an important issue; male students appear to use the Internet more than their female counterparts; just as science based students use it more than the non-science based students.

Mohammad Nazim (2008) focused the results of a survey conducted at Aligarh Muslim University (AMU) to determine the extent to which Internet-users are aware and make use of the Internet resources and services. The study examines the information searching behaviour of Internet users. A questionnaire and follow-up interviews with the postgraduate students, research scholars and academic staff were conducted to collect data. A total of 489 questionnaires were distributed to the selected sample of eight faculties; 405 valid samples were collected. The data were analyzed according to the background of Internet users, Internet information searching behaviour, use of Internet resources and services, quality of Internet information, problems of the Internet access and need for Internet literacy. The study found that the majority of respondents had a 5 year history of Internet access. The academic staff spent more time on the Internet than the students and research scholars. Although Internet search engines were the preferred information searching tool, other methods such as databases, gateways and World Wide Web (WWW) were also used. Online journals and databases were the preferred information sources among the Internet users. Respondents chose e-mail, WWW and search engines as important Internet services. About 60% of respondents believed that the good quality of information on the Internet made it a useful tool for education and research. Slow
speeds, lack of training and information overload were indicated as some of the factors affecting Internet usage.

Odunlade (2008) identified the extent of students’ access to and use of the Internet by science undergraduate students of university of Ibadan and university of Lagos as a case study. The study also aimed at comparing the rate of use among this group of students and determines which is mostly used between the Internet and the Library. The research showed that majority of science undergraduate students do make use of the Internet because it was considered to provide wide coverage of information, contains adequate and current information, it is quickly and easily accessible, it provided electronic journals. The studies further revealed Net provided the student resource to carry out assignment enhances their knowledge and allow them to communicate faster. It was discovered that though a greater percentage of them patronize the library, the satisfaction required were not provided. Some of the reasons were inadequacy of library materials, obsolete materials and poor library conditions.

Sakina et al. (2008) presented the results of a survey of the undergraduate, graduate and post graduate students of the University of the Punjab, Lahore, Pakistan. The objective of the study was to explore the Internet use behaviour of students. The results show that most of the students use this technology for course related reading and research needs. They use it at the University Library’s Digital Lab Unit as well as their departments and homes. A large number of them have learnt to use the Internet tools by themselves, or relying on assistance from friends without attending any formal training programs. Ease of work and time saving are the reasons of Internet use among university students. Google as a search engine and Yahoo as an email service are the most popular among students.

Arulchelvan (2007) analysed the patterns of Internet usage among different categories of students. Examining notions on the possession, purpose, frequency, timing and duration of usage of Internet in higher education, the study also assessed the outcomes indicated by user satisfaction. The study found that Internet enjoys high popularity among students for educational usage and that its effectiveness is satisfactory the online contents match the curriculum requirements.

Beverly et al. (2007) assessed the Internet use, abuse, and dependence. Sample comprised of 411 undergraduate students. Results revealed that 90% participants reported daily use of Internet. Approximately half of the sample met the criteria for
Internet abuse, and one-quarter met the criteria for Internet dependence. Men and women did not differ on the mean amount of time accessing the Internet each day; however, the reasons for accessing the Internet differed between the two groups. Depression had a correlation with high frequency usage of Internet to meet people, socially experiment, and participate in chat rooms, and with less frequent face-to-face socialization. Besides, individuals meeting criteria for Internet abuse & dependence endorsed more depressive symptoms, more time online, and less face-to-face socialization than did those not meeting the criteria.

Ammobi Chinwe (2006) identified the rate and purpose of Internet use by students in order to be well positioned to provide effective Internet services to them. The study was conducted on 1200 students of Federal University of Technology Nigeria. Questionnaire was randomly distributed to 1200 students out of which 67.6% were returned. The survey showed that 95.5% male and 90.4% female students had used Internet. Most (50.2%) of the students accessed Internet only once in a week and only 3.5% used Internet daily. Students used Internet for the purposes such as entertainments and sports, academic purposes, correspondences and social and business purposes. The areas of academic activities these students focused on the Internet included according to their responses are knowledge improvement, collection of materials for assignment and collection of materials for research, projects and assignment. The enumerated purposes were achieved through accessing and downloading academic material, access and downloading software, visiting other university sites and sending or receiving e-mails.

Anasi (2006) examined the pattern of Internet use by undergraduate students at the University of Lagos, Nigeria. It revealed that the level of Internet use is low among undergraduate students from both the Faculty of Education and Faculty of Law. It also revealed that though majority of the students browse the Internet many of them cannot design search strategies. However, the study showed that Internet use has very high impact on the academic/career related activities of the students.

Kumar and Kaur (2005) analysed the Internet use in the Engineering Colleges of Punjab, India. Questionnaire was employed to sample opinion of 474 students. It was revealed that 30.8% of the students have 2 – 4 years of experience in using the Internet followed by 1 – 2 years with 27.4%. A majority of the respondents used the Internet located at the college; use Internet for education and research purposes, while
half of them use it for communication purpose. More than half of the students use the Internet for consulting technical reports. It was further indicated that the major problem faced by the users was slow access speed of the Internet. In comparing Internet with conventional documents, 91.6% of the respondents noted that the Internet is easy to use, 89.1% agreed that it is informative and 88.1% felt it is time saving.

Chung-Chuan Yang (2000) discussed whether academic homosexual individuals perceive the Internet to be more fair and impartial in terms of news reporting than traditional mass media and to investigate why they use the Internet. This study employs a questionnaire survey method to collect data in Taiwan. The quantitative survey data (N=701), from a self-completed questionnaire using modified snowball sampling technique. Principal component analysis with Varimax rotation led to seven factors that account for 66.31% of the variance. These factors are social interaction and information, entertainment and relaxation, personal revelation, preference, privacy and escapism, pass time and, novelty-seeking. Correlation analyses also suggested those respondents' demographics, Internet usage frequency and, time are associated with their use motivation.

Anderson (2001) identified how the students’ use of Internet has affected their academic and social lives. Investigator surveyed 1300 college students in classrooms at 8 academic institutions, 7 in the United States and 1 in the Ireland. Investigator motivated to do the research by some case studied and data were collected through open-ended questionnaires. Results found that, one-tenth of college students are dependent on Internet. Nearly 10% of Internet using college students spends enough time online. Their usage meets criteria for Internet dependence. Results also showed that, students majoring in the hard sciences i.e., Chemistry, Math, Engineering, Physics and Computer Science spent significantly more time online than other students.
Overview

The overview of related literature involves locating, reaching and evaluation of research as well as the reports of casual observation and the opinions that are related to the researchers’ planned research project. Overview provides a comprehensive coverage of the researches related to the topic. Investigator relatively to frame a summary of the previous researches which indicate the areas of agreement or it is presumed that the survey of related studies will make the present investigation more direct and to the point. The general purpose of the overview is to help the researchers develop a thorough understanding and insight into work already done on the areas left untouched and unexplored. One hundred twenty-two studies have been discussed in the present chapter under six captions, but the divergent results have come out. Besides, number of studies which also have shown contradictory results. The comprehension of all these studies present as under:

1. Studies on Internet-users and Internet Non-users

Few studies have been conducted on Internet-users and Internet Non-users as: 

Ali, Zarqa (2014) revealed Internet-users and non-users with different perceptions. The non-users disagree with the scope of the Internet in their academic activities while the users agree that the Internet has a positive role in academic pursuits. Cliff & Nicole Ellison (2013) compared non-adopters against users on three dimensions of use. Light users often experience social capital outcomes similar to, or worse than, non-users, and heavy users reported higher perceived bridging and bonding social capital than either group. Ibia & Ekott (2013) indicated significant gender and age differences in Internet usage; significant differences in social skills development, social tolerance and pattern of behaviour between Internet-users and Non-users while a strong relationship were established between Internet usage and social skills development. It has also been observed that Internet usage negatively affected social skills development of youths. Narimani et al. (2013) showed that there is a significant difference between the means of two groups, using Internet and not using, and the variables of mental health and aggression. Results revealed that students using Internet report more unfavourable mental health and aggression control than the students not using. Orose Leelakulthanit (2013) revealed the Internet-users as more satisfied with their lives than the non-Internet users. Internet-users value optimism, personal health,
and self positively. The non-Internet users’ value optimism, internal locus of control, and family positively, whereas being moderate user, social life were valued negatively. Pavica Sheldon (2012) compared average Face book users and Non-users, concluded that Non-users are significantly higher on mean scores on shyness and loneliness. Non-users, on the other hand are reported less socially active, and less prone to sensation seeking activities. Soudeh & Masoud (2011) found sensation seeking of Internet dependents significantly different from non-dependents. Internet dependents showed significantly higher scores on subscales of thrill and adventure seeking no inhibition and boredom susceptibility compared with non-dependents. Sujatha (2011) revealed the rate of Internet use more among the students of Commerce and Science faculty as compared to the faculty of Arts. However, majority of the students expressed their interest in the use of the Internet and its resources and seemed to be enthusiastic in improving their skills in the use of the Internet. Zarqa Ali (2011) revealed that the Internet has brought family members closer to each other, enhancing the unity among them and strengthening the family ties which have increased the sense of responsibility among youth. The perception of males and females was not significantly different. However, the perception of users and non-users of the Internet was different. Elisabeth et al. (2009) revealed age and education as major determinants of attitude patterns towards Internet and new technologies. The influence of the affective component has to be especially emphasized, not only when overcoming the initial obstacle of getting online, but also when it comes to willingness to learn and become a sophisticated user (second order digital divide). John & Siven Martin (2009) found Internet-users expressed most general social Survey items, however, either there were no differences between Internet-users and non-users, or the differences could be explained by age, education, race, and gender or income factors. Pierce (2008) found that those who used various communication technologies had significantly lower grades than those who did not. Teens who used various communication technologies while doing their homework reported having lower grades than those who did not use the technology while doing their homework. Shu Ching & Tung (2007) revealed that Internet addicts spent almost twice as many hours on line on average than the non-addicts. Internet addicts obtained markedly scored higher than non-addicts on four subscales (tolerance; compulsive use and
withdrawal; related problems, including family, school, health, and other problems; interpersonal and financial problems). While Internet addicts perceived the Internet to have significantly more negative influences on daily routines, school performance, teacher and parental relation than non-addicts. Alan & Robinson (2002) found Internet-users reported spending more evenings with friends than nonusers and fewer evenings with relatives and neighbour. Ofosu (2001) revealed Internet dependents showed more perceived social support than non-Internet dependents. Internet dependents felt more inclined to use the Internet to search for the social support that they were lacking in their conventional face to face relationships with their family and friends. It has been observed that there was a strong association between Internet-dependence and dissociation. Internet dependents expressed significantly more social loneliness than family or romantic loneliness as compared to non-Internet dependents.

2. Studies on Internet and Life Style

Various studies have been conducted on Internet and lifestyle as:

Nasir Younis (2014) reported university students with a low score in the total healthy lifestyle habits and female with higher than those of male. Azizah et al. (2013) revealed that, Internet addiction causes lower academic performances, bad personality and unhealthy lifestyle. There were significant differences in academic performances, personality and lifestyle between “Average user” and “Excessive user”. Binnaz et al. (2013) revealed that there is a meaningful relationship between Internet use and loneliness scores, whereas no relationship was observed with social self-efficacy scores. On the other hand, students with a higher score on Internet use have a higher degree of loneliness as compared to students who have moderate and low degree of Internet use. Chih Hung et al. (2013) showed that problematic Internet use predicted negative changes in lifestyle including a reduction of physical and social activities, irregular diet and unhealthy sleep. Cynthia Shuster et al. (2013) indicated that students gained knowledge on nutrition, health and fitness topics while making strides towards lifestyle changes and adoption of healthy habits from online, technology. Derbshire et al. (2013) revealed that greater frequency of Internet use included lower Grade Point Average, less frequent exercise (indicative of greater depression symptoms) and higher Perceived Stress Scores. Karl Peltzer et al.(2013) revealed that there are three health risk behaviour (sedentary lifestyle, illicit drug use and
Review of the Related Literature

gambling) and three health outcomes [being underweight, overweight or obese and having screened positive for post-traumatic stress disorder] were found to be associated with heavy Internet use. Rozita et al. (2013) revealed that the Internet usage adversary affects the academic performance. Moreover, results show higher average time spent on Internet did result into nonparticipation in other activities, which are very essential for the growth of the students. Vasilis Gialamas et al. (2013) showed that students believe that Internet use in university study makes learning more interesting and effective, and that possessing Internet skills will assist their future job prospects. More the years of digital experience higher the frequency of Internet usage. Ilknur & Yildirm (2012) found weak negative correlation between problematic Internet use and healthy lifestyle behaviour, gender and daily Internet use time also appeared to affect healthy lifestyle behaviour. Keshtiaray & Akbarian (2012) indicated that university students have acquired a lot of positive and negative experiences while using the Internet which have affected the norms, ideas, beliefs, ethics and verbal symbols. Ligang Wang et al. (2012) revealed that certain Internet habits, such as excessive online time, accessing the Internet in an Internet bar, and using the Internet for catharsis, are related to poor lifestyle habits in adolescents; however, using the Internet for purposes such as gaining knowledge and finding information positively predicts healthy lifestyles in adolescents. Rina Dave (2012) revealed that the majority of Internet-users always find useful information on the Internet and believed that quality information is available on the Internet. They use the Internet in different ways, such as accessing to online journals, downloading software or text, chatting, discussion, E-mail services and for finding related references. It was unveiled that the Internet services are normally used for projects. Also it is observed that the Google and Yahoo search engines are more widely used compared to other search engines. Aysegul & Kilic (2011) showed that the daily time spent for Internet (duration) and using Internet for social interaction, being in higher socio-economic status to have lower life satisfaction and lower self-control and to have higher neuroticism, anxiety and Internet addiction among university students. Paulo et al. (2011) revealed that new information technologies exposure do not change significantly knowledge on physical activity/health relation Richard et al. (2011) examined heavy Internet-users of both genders were more likely to report higher
depressive scores, whereas only male users were found at increased risk of overweight and female users at increased risk of insufficient sleep. Male non-Internet-users and female Internet-users and occasional users also were found at increased risk of higher depressive scores. Shields & Kane (2011) found frequency of Internet use was not related to symptoms of depression, but three of the types of use (starting the day on the Internet, visiting news sites, viewing videos) reduced symptoms of depression. Internet use is used to replace social interaction. However, the significant relationships between Internet use and quality of relationships with parents and others tended to be negative. Vida Fallahi (2011) indicated that some students are addicted to the net and more result showed significant difference between differed users groups. Addicted group are more alone than other groups. Yair et al. (2011) revealed that Internet usage can actually enhance the social lives of its users. Different life domains in which significant correlations between Internet usage and increased social interactions was found. Ju Sun (2009) indicated that the college students using Internet for entertainment maybe have a significant impact on their health and study. A significant fact is that some students use Internet all-night, they are infatuatededly online so that forget to eat and sleep and skip classes and this behaviour will seriously influence their study. Kim et al. (2009) confirms heavy Internet use was associated with lower likelihood of engaging in health-promoting activities such as exercising and seeking medical care which results skipping meals and sleeping late as well as poorer health outcomes. Louis Leung (2009) found that Internet connectedness is not related to quality of life. However, there is a significant relationship between Internet connectedness and information literacy, and a strong link between information literacy and life quality. Mohseni et al. (2008) revealed that time spent online during the day has a negative relationship with social isolation. It is appeared that the both Internet use and social use of Internet will be slightly associated with reduced level of social isolation. Neil Selwyn (2008) found students’ academic Internet use is most strongly patterned along the lines of gender and subject-specialism rather than other individual characteristics or differences in technology access or expertise. Gordon & Syed (2007) found that the amount of time spent online was significantly associated with depression and social anxiety. Cam Escoffery et al. (2005) showed that majority of the students indicated that they would like to get health information online, and
attend a health program online. The study also found differences in Internet use for health information by gender and by level of Internet experience. Dennis & Moore (2004) indicated that, for males only, higher levels of social anxiety and less mature identity statuses were associated with more frequent Internet use. For females (who were in this sample less socially anxious, more identity-developed, and lower users of the Internet than males), social anxiety and identity status were not significantly associated with time spent online. Itamar et al. (2003) revealed that composite perceived benefit was found to be positively associated with the Internet users’ decidedness at the completion of the dialogue with making better career decisions. Samuel and Tatia Lee (2001) revealed computer users tended to engage in social-physical activities more frequently and had higher social support than Nonusers. But among computer users, the amount of time spent daily on the computer was not associated with lifestyle. Instead, patterns of computer usage are more related to lifestyle and the relationship is moderated by gender.

3. Studies on Internet and Attitude towards research

Some studies have been conducted on Internet and attitude towards research as: Amidic et al. (2014) who revealed that the application of and preference for information and communication technology was important in learning vocational education subjects. Students use World Wide Web (www) in their learning process and use word processing for writing research projects and in taking notes in class. They also agreed that ICT is used for storing information based on speed and accuracy. Abimbola & Airen (2013) revealed that the undergraduates used ICT for research purpose and to support course of study. Bandele & Adebule (2013) revealed that research work makes the students anxious, nervous, bored, and scared and that they would not have enrolled for the course if opportune. Irrespective of type of gender and faculty of the students they are similar in their pattern of attitude to research work, almost they had negative attitude towards research work. Odede Israel (2013) found students have positive attitudes towards educational use of the Internet and used it as important tool for research and they believed that ‘using the Internet is easier than using the library. Ibegwam et al. (2012) revealed that Internet use in the Thesis and Dissertations studied was poor and insignificant in comparison to other sources of information used by the postgraduate students. This is contrary to the
findings in some recent studies where graduate students were reported to have made high use of the Internet for Thesis and Dissertations research. Thomas et al. (2012) indicated insignificant differences between men and women in the innovative-creative thinking. On the other hand, significant differences revealed between men and women regarding research attitude. Alison & Eisenberg (2011) revealed that students used a hybrid information seeking strategy for meeting their everyday life information needs, turning to search engines almost as much as they did to friends and family. Chinwe, Nwezeh (2010) revealed that a majority of the surveyed academic staff and the students found the Internet to be very useful. Both groups used World Wide Web for research information. Kaan & Goksü (2010) revealed that there may be a relation between some variables and the university students’ attitudes towards participation in scientific studies. Milan & Vickove (2010) found that students who were connected in some way with ICT achieved better scores on the science knowledge test in comparison with students who were not. Students whose ICT activity was connected with the educational process achieved a higher score in comparison with students whose ICT activity was not connected with the educational process. Negahban & Bagher (2010) revealed that students have more familiarity was found in journals, book search and book shops on the Internet and less familiarity was observed for chatting, email, encyclopaedia, directories and yellow pages. Rehman et al. (2010) revealed that most students are comfortable using the Internet and provide substantial information and easier to use than the collection of research tools. Biradar et al. (2008) found that the information available on the Internet had proved to be a great asset. The most popular used search engines by students and faculties were Yahoo and Goggle. Margam (2008) found that the e-resources could be good substitutes for conventional resources. Google was the most widely used search engine for locating information electronically. Khare et al. (2007) found that majority of research scholars use Internet and less percentage of research scholars were non users of Internet. The purposes of the users of Internet were educational, job search, entertainment, communication and business. Some believed that information is sufficient and some users believed that retrieved information from the net was not sufficient for their research purpose. Mahajan (2006) revealed that researchers use electronic resources more than paper resources as they were confident to find
resources through Internet rather than paper resources. The other purposes of using Internet were document delivery services, online job seeking, publishing research papers in e-journals etc. Most of the science researchers and social science researchers agreed that Internet had a positive impact on their study and research, while researchers in humanities did not agree with the above statement. Oghenevwogaga et al. (2005) revealed that students are now coming to university with more background in technology and the role of the Internet and other ICTs. The demand for Internet service will continue to grow and how the university should respond to meet this greater demand.

4. Studies on Internet and Academic Achievement

Several studies have been carried out on Internet and academic achievement as:

Eshaghal Azizi (2014) indicated that component of information search is significantly and negatively correlated with academic achievement of science students with different combination of subjects. No significant relationship between Internet competency and academic achievement of science students was established. Fauzi et al. (2014) found computer science students spending more time online than the others. Social science students, a low but significant positive correlation existed between the overall time spent online and the time spent on the Internet for academic research. Science students, a negative low correlation was observed. In the fields of agriculture, engineering and computer sciences, however, no correlation was found between Internet access duration and the use of the Internet for academic purposes. Ibrahim & Demirkolb (2014) revealed that the academic performance of the students from the blended learning environment group has been found more successful than the students from traditional learning environment group. In both of the learning environments, female students have turned out to be more successful than the male students. Magwa Simuforosa (2013) found out that modern technology impacts learning both positively and negatively. Sunday Paul (2013) revealed that most of the students that have access to the Internet browse more for non-educative information (socio-networking sites). The relationship between Internet browsing and students’ achievement was not significant. Anomo & Oyenuga (2012) revealed that female students are more disposed to the use of the Internet for social networking than their male counterparts; most of the special sites students visit on the Internet is not for academic
engagements. Use of Internet technology show significant relationship with students’ academic achievement. Horzum & Baris (2012) revealed pedagogical content knowledge and the attitudes towards web based instruction of the experiment group were found to be higher than control group after the course. Also the academic achievement of experiment group was higher than control group and there was no difference in course satisfaction. Ela Goyal et al. (2011) indicated that technology satisfaction and the Internet usage significantly explains the variance on students’ performance. Technology Satisfaction has been found the predictor of Technology resistance, student’s performance and Internet usage. Internet usage is the predictor of Technology satisfaction and student’s performance. Scott et al. (2011) found small but significant (both statistically and educationally) association between heavier web browsing and poorer academic results (lower average mark, higher failure rates). Zainol et al. (2011) revealed that attitude, subjective norms, and perceived behavioural control are statistically significant in influencing intention to use the Internet for learning purposes. Students’ intention to use the Internet for academic purposes could be predicted from their attitude, subjective norms, and perceived behavioural control. Zhu et al. (2011) revealed that the positive effect of Internet information seeking to students’ academic performance is mediated through academic self-efficacy. Academic self-efficacy, at the same time, moderates the relationship between Internet information seeking to academic performance such that students’ with low academic self-efficacy benefit more from Internet information seeking in regard to their academic performance. Ahmet Aypay (2010) revealed that there was no significant relationship found between students ICT skills and academic achievement. Fariborzi & Khodadadi (2010) found that there was no significant relationship between the amount of using Internet and the academic level of student. There were not significant differences about the academic achievement between students who use Internet for learning the course and students who did not. Shamimul & Hasan Fouj (2010) revealed that majority of the students are in the dark about the potential role of ICT in their academic life. Moreover it has been found in the research that the ICT access provided to the students are not utilized to enhance academic performance but it is rather a source of recreation. Adel & Moony (2008) revealed that the student’s performance is mainly explained by a student’s characteristics, educational
environment and teachers’ characteristics; ICT may have an impact on these determinants and consequently the outcome of education. The differences observed in students’ performance are thus more related to the differentiated impact of ICT on standard explanatory factors. Alodied et al. (2008) found that there was no significant difference in achievement based on the number of hours spent using the intranet; also, there is no significant difference in self-confidence or achievement between male and female. Yavuz et al. (2008) revealed that web based education have positive effects on the improvement of academic achievement. The web based education had positive effects mainly on motivation for learning and interested in the lessons. Chen & Peng (2008) revealed that Non-heavy Internet-users had better relationship with administrative staff, academic grades and learning satisfaction than heavy Internet users. Heavy Internet-users were more likely than non-heavy Internet-users to be depressed, physically ill, lonely and introverted. Web based education had positive effects mainly on motivation for learning and lessons interest. Qiping et al. (2007) found traditional mode students have achieved a slightly better performance in examinations in comparison with online mode students, the research concludes that there are no significant differences in overall performance between the students. Kubey & Barrows (2001) revealed that students with academic problems reported that they stayed up late, felt tired the next day and missed class due to their use of the Internet. Norshuhada Shiratuddin (2001) confirmed that employing Internet in educational settings proves to have significant effect on students’ performance.

5. Studies on Internet and Gender Differences
A significant number of studies have been conducted on Internet and gender differences as: Amanda et al. (2013) who indicated that women, compared to men, are generally more frequent mediated communication users. Compared to men, women prefer and more frequently use text messaging, social media, and online video calls. Ann & Maltby (2013) showed more women’s postings and made new friends, renewing old friendships, accessing information and advice, studying online, and shopping, while more men’s postings mentioned that the Internet had helped or given them a career, positive socio-political effects, and negative aspects of the technology. Chih-Hung & Gwung (2013) found that Internet usage on social interaction and information seeking
can positively affect all kinds of interpersonal relationships. Males have lower extent of teacher-student relationship and higher level of net-friend relationship than females. Patrick et al. (2013) revealed that boys and girls differed in their intensity of usage, place of access and their motivations to use the Internet. Girls were more motivated by social–interaction, shopping and surveillance/ information, while boys were more motivated by eroticism and had a higher tendency to be addicted to the Internet. Anna Bujala (2012) indicated gender differences both in the intensity of Internet usage and the ways in which it is used. Women spend less time online, have shorter experience online, and express less openness towards online relationships or services. Whereas as men engage much more often in activities such as playing games, listening to music or the radio, watching films, or looking for humorous content than women do. Tao et al. (2012) found gender differences are reflected in that male college students have a higher level of perceptions of Internet self-efficacy, experience, and information overload than females. Yousef Eyadat, (2012) indicated that the university students under excessive use of the Internet neglect household responsibilities and neglect exams and courses to spend more time online. There were no significant differences in the excessive use of the Internet based on differences in gender. Christy & Lee (2011) revealed that attitude and behavioural intention to use an Internet-based learning medium, more strongly for male students than it influences female students, whilst subjective norm is a more important factor determining female students’ intention to use an Internet-based learning medium than it is for male students. Loan (2011) found female students use the Internet more than males for information and education whereas male students use the Internet more than females for communication and entertainment. Neither male nor female students record high use the Internet sources like online libraries, databases, e-books, e-journals, wikis, and blogs. Wong et al. (2008) revealed no gender disparity in Internet usage; the female students were found to spend as much time using the Internet as their male counterparts. The results also revealed that the students exhibited positive attitudes toward the Internet regardless of gender. Alan & Zsolt (2005) significant gender effects were found throughout, with males tending to report greater computer self efficacy, lower computer anxiety, more positive attitudes towards the Internet and longer use of the Internet than females. Ann Britt (2005) indicated that it cannot be
seen that boys and girls have different interests in the Internet technology in practice. But boys talk about their knowledge to a greater extent, and this interplays with their reflections about the Internet's reliability. Richard et al. (2005) revealed that males were proportionally more likely to have their own web page than were females. They used the Internet more than females; in particular, they were more likely to use game websites, to use other specialist websites, and to download material from the Internet. Madell & Muncer (2004) with regard to gender differences, males were significantly more likely than females to use the Internet for the WWW. Boys were more likely than girls to use the Internet for playing or downloading music, browsing to find out information about goods and services, buying or ordering goods, tickets or services, down loading software, including games and also using the net for accessing government or official services. However girls used the Internet more than boys for using E-mail, finding information related to education and using chat rooms or sites. Eric Weiser (2000) showed that males use the Internet mainly for purposes related to entertainment and leisure, whereas women use it primarily for interpersonal communication and educational assistance. Odell et al. (2000) indicated that while the gender gap in the use of Internet has nearly closed.

Studies on Related variables

Various studies have been carried out on Internet usage among students as:

Abdullah (2014) who revealed that majority of students using browsers to view documents, while slightly smaller percentages reported using the Internet for personal purposes. Bagman et al. (2014) indicated significant relationship between Internet dependence and educational downfall, leisure time, communicating with others, tendency to aggression, social isolation, and life satisfaction. Shabana et al. (2014) revealed that most of the students of university consider Internet as a tool for information. They use it for study purposes. They think that Internet is an easier way to get information then library. Razaque et al. (2013) revealed that most of the students use Internet for entertainments and obtaining the information for making their assignments of the class. Jalalinejad (2012) demonstrated that prevalence of Internet addiction among boys’ university students was more than girls and in science and engineering students was more than art and humanity students. There was a significant difference in these four groups on the level of anxiety. Maria et al. (2012)
Internet-users found fairly high level of risk of Internet attitudes and behaviour. Ofodu Graceful (2012) revealed that university students generally enjoy reading and it could be safely said that the reading culture of the students is favourable since the advent of Internet. It also reveals that large number respondents actually engage in activities that may not add value to their academic performance. Ayyad, Khayrat (2011) found students access to Internet extensively and use it to gratify their personal, social and educational needs. While the main reasons for accessing the Internet among male student are to communicate through e-mails and to follow up current affairs, female students use the Internet mostly to entertain themselves and to search for information related to their studies. Hatice Odaci (2011) revealed a significant negative correlation between academic self-efficacy and problematic Internet use, while the relation between problematic Internet use and academic procrastination was not statistically significant. Munur & Tugun (2011) revealed that the huge percentage of the students is using the Internet for researching. Silvia & Tsai (2011) revealed that students perceived higher levels of collaboration in Internet-based learning than in traditional learning environments. In terms of students’ education level, higher education students perceived higher levels of capabilities and interests in Internet-based learning. Sudhier & Seethalekshmi, (2011) revealed that most of the students used Internet for educational purposes. They used e-resources mainly for seminar presentations and for project works. Shakeel & Rubina (2010) revealed that students’ attitude towards the Internet was very positive and they used it mainly for study purpose. They used online databases, dictionaries, encyclopaedias and online courses. Google was the most popular search engine for retrieving information on the Internet. Maharana et al. (2010) revealed that students strongly felt that study would be severely affected without the use of the Internet and e-resources. Michael et al. (2008) revealed that the students use the Internet mostly for e-mail, information search and online chatting; all of these were found to have significant impact on their academics and social life. Male students appear to use the Internet more than their female counterparts; just as science based students use it more than the non-science based students. Nazim (2008) revealed that online journals and databases were the preferred information sources among the Internet users. Majority of respondents believed that the good quality of information on the Internet made it a useful tool for education and
research. Odunlade (2008) showed that students do make use of the Internet because it was considered to provide wide coverage of information, contains adequate and current information, it is quickly and easily accessible, it provided electronic journals that could be purchased online and so on. Sakina et al. (2008) showed that most of the students use this technology for course related reading and research needs. Ease of work and time saving are the reasons of Internet use among university students. Arulchelvan (2007) found that Internet enjoys high popularity among students for educational usage and that its effectiveness is satisfactory the online contents match the curriculum requirements. Beverly et al. (2007) found depression was correlated with more frequent use of the Internet. Dependence on Internet endorsed more depressive symptoms, more time online, and less face-to-face socialization. Ammobi, Chinwe (2006) students used Internet for various purposes. The areas of academic activities these students focused on the Internet included according to their responses are knowledge improvement, collection of materials for assignment and collection of materials for research, projects and assignment. Anasi (2006) revealed that Internet use has very high impact on the academic/career related activities of the students. Kumar & Kaur (2005) revealed a majority of the respondents involved in the use of the Internet for education and research purposes, while many of them use it for communication purpose and for consulting technical reports. Anderson (2001) found one-tenth of college students dependent on Internet. Nearly ten percent of college students have been to spend enough time online. Their usage meets criteria for Internet dependence. Students from hard sciences i.e., Chemistry, Math, Engineering, Physics and Computer Science spent significantly more time online than other students.

It is observed that in these studies different methodologies have been used and different aspects of Internet use and Non-use have been dealt with. After reviewing all these studies, a clear idea is arrived to carry out the present study.
Conclusions
This chapter reviews thoughts and inputs of various researchers in the field of Internet-use and Non-use among students around the world in order to gain insight into various variables which form the basic constructs of this study. It identifies and discusses the various variables for the present study, which form the basis for setting objectives and formulating hypotheses. These studies provide conceptual framework, historical perspective of Internet usage among “university students”.

The present investigator consulted various studies carried out during the past few decades on Internet usage has been systematically presented in the preceding pages. These researches have considered a wide spectrum of areas viz.a.viz. variables. Hence, these research studies formulated a strong foundation to the structure and the contour of the present study. The present study differs from the earlier ones with respect to the purpose, region and conditions in which it has been conducted. But there seems no such research endeavour which could directly appraise about the Internet usage and Internet Non-usage among university students and its influence on the variables under investigation. In fact, no such effort seems to have been reported so far to undertake a factor analytical type of investigation on Internet usage among university students on various dimensions of lifestyle and attitude towards research.

Therefore, it can be concluded that the scope of research is unlimited and beyond imagination. Thus, on the basis of review and conclusions drawn, a fresh relook and filling up the existing gap in research related the Internet usage among university seems to be genuine and the present study is a direction in this regard.