



To study the effects of internet user adolescent's demographic background and frequency of internet access, as well as their interactions, on their overall well-being

¹Devanshi Sharma and ²Dr. Satish Kumar

¹Research Scholar, Department of Psychology, Maharaja Agrasen Himalayan Garhwal University, Uttarakhand, India

²Assistant Professor, Department of Psychology, Maharaja Agrasen Himalayan Garhwal University, Uttarakhand, India

Corresponding Author: Devanshi Sharma

Abstract

Adolescents' access to the internet has increased dramatically during the last decade. Pre-adolescents and younger children also make extensive use of the Internet. The Internet, as a new information and communication medium, provides a practical dilemma that requires individuals, particularly adolescents and families, to think critically and reflectively. Because it is a complex virtual social and physical world that children and teenagers interact in and co-construct, rather than something that is only watched (TV) or merely utilised (computer), the Internet is more fascinating and difficult as a research environment than prior media (PC). Behind a small screen, it transforms into a sophisticated virtual cosmos where developmental concerns are played out in both old and new ways, providing new insights into children's and teenagers' ideas, feelings, and behaviours. As web-connected cell phones and other new Internet apps become available, this world will continue to expand. The studies mentioned above show that different factors associated with Internet use operate differently in different races, cultures, and gender groups, and since there is a scarcity of systematic research in India, it is appropriate to investigate whether Internet use alone or in combination with other factors is responsible for differences in Social Competence, Emotional Maturity, and General Well-being. Research on the impact of Internet use on teenage social competence, emotional maturity, and overall well-being is still in its infancy, particularly in India, and needs to be enhanced qualitatively and statistically.

Keywords: Adolescents, Social Competence, Emotional Maturity, General Well-Being

Introduction

The Internet has transformed the realms of computing and communication unprecedentedly. This emerged from the audacious endeavors of a cohort in the 1960s, who saw the significant potential of a computer-mediated communication system for disseminating scientific and research information. The development of the telegraph, telephone, radio, and computer established the foundation for an unparalleled amalgamation of functionalities. Nonetheless, it is not a singular invention; rather, it is a fundamental concept that has developed throughout the decades into a more substantial entity. The Atlantic Cable of 1858 and Sputnik of 1957 are two fundamental milestones in the pre-history of the Internet.

In retrospect, the fundamental concept of the Internet is remarkably simple; nonetheless, through numerous modifications, it has developed and transformed into its present state. It has undergone continual transformation,

enduring significant technological shifts and adapting to the exponential growth of users. The contemporary Internet would not exist without the diligent efforts of highly intelligent individuals. The technology and standards they developed enable the current Internet and World Wide Web. Some individuals are renowned, while others remain obscure, although all have significantly contributed to the history of the Internet and merit acknowledgment and appreciation for their transformative impact on the globe.

Services provided by the internet

In the contemporary era of swift knowledge proliferation and technical progress, the Internet has fundamentally transformed the manner in which information is accessed. It has emerged as a viable instrument for society reform, encompassing the economics, culture, ethics, and education. The following services are offered via the Internet:

Information: The Internet likely provides the most significant advantage in terms of information access. The Internet is an extensive repository of information. Information about any subject is accessible on the Internet. Search engines such as Google and Yahoo are available for our use on the Internet. We can readily locate various types of data on nearly any subject of interest.

Communication: The primary objective of the Internet has consistently been communication. The Internet has surpassed expectations. Innovations continue to enhance its speed and reliability. We can now speak in a fraction of a second with individuals located on the opposite side of the globe. Currently, for enhanced communication, we can utilize e-mail services and engage in prolonged conversations with our loved ones. Numerous messenger services are available. Such services facilitate the establishment of global friendships, enabling the sharing of opinions and the exploration of many cultures.

File Transfer: File transfer refers to the process of transmitting files across a computer network or the Internet. There are various methods and protocols for transferring files across a network. Computers that offer a file transfer service are sometimes referred to as file servers. The terminology for data transfer is contingent upon the user's perspective, being referred to as either uploading or downloading. A plethora of publications, databases, and other material is accessible in this manner.

Objectives of the study

The following goals were pursued in this study:

To investigate the effects of Internet user adolescent's residential background, gender, academic stream, and frequency of Internet access, as well as their interactions, on their overall well-being.

Review of literature

The Pew Internet Project (2010) conducted a poll of 800 adolescents aged 12 to 17, revealing that 93% of teenagers access the internet. The predominant activity for this age group, at 78%, is online gaming. Email communication is less favored among teenagers, with only 73% utilizing email, which is the same percentage that engages with social networking sites. 67% engage in Instant Messaging, 62% obtain news online, 57% of adolescents view videos, 48% purchase things, and 31% seek health information. In 2009, merely 14% of adolescents maintained personal blogs. Moreover, a mere 8% of online adolescents utilize Twitter, a figure comparable to the 8% who engage with virtual worlds.

An Australian survey conducted by Coker (2009) ^[4] indicates that 70% of those who access the Internet at work participate in Workplace Internet Leisure Browsing (WILB) activities. The most prevalent WILB activities included researching product information, perusing online news platforms, engaging in online gaming, and viewing videos on YouTube. The study examined individuals who engaged in moderate browsing, defined as spending less than 20% of their total office time online. The study determined that those who utilize the Internet for personal purposes at work exhibit around 9% greater productivity than those who do

not. Study author Brent Coker stated, "Individuals exhibiting tendencies of Internet addiction will demonstrate reduced productivity compared to those who do not."

The Pew Internet and American Life Project (2005) concluded that a significant majority of American teenagers, 87% of individuals aged 12 to 17, utilize the Internet in a broader array of manners than they did in 2000. Currently, over 11 million (51%) adolescents access the internet everyday, in contrast to roughly 7 million (42%) in 2000. 89% of adolescents send and read emails.

81% of adolescent Internet users engage in online gaming. Seventy-six percent obtain news via the internet. Seventy-five percent of online adolescents utilize instant messaging, and forty-eight percent of these adolescents engage in daily IM exchanges. 43% have engaged in online purchasing, whereas 31% utilize the Internet for health-related information. Nonetheless, despite this progress, 13% of American youths, around 3 million individuals, remain non-users of the Internet. Approximately 47% of adolescents who claim to be offline have previously accessed the internet but have now ceased to do so. Teens who remain offline are distinctly characterized by reduced income and restricted access to technology. They are also disproportionately likely to be African American. Conversely, nearly all adolescents in households with annual incomes exceeding \$75,000 are online, the majority utilizing high-speed connections.

Research Methodology

Research methodology is a systematic approach to resolving the research challenge. Research is a meticulous and methodical examination of a subject aimed at uncovering or refining facts, theories, and applications. Methodology refers to the systematic approach of procedures employed within a specific discipline. A research technique delineates the approach employed in doing research.

This study aimed to investigate the perceived impact of Internet usage on adolescents' social competence, emotional maturity, and overall well-being. Consequently, a descriptive survey inquiry employing a factorial design was utilized. Descriptive survey research is likely the most commonly employed method of observation in the social sciences. The researcher usually selects a sample of respondents from a certain group and gives standardized questionnaires or scales to them.

A 2×2×2×3 factorial design was utilized to examine the primary and interactive effects of Residential Background, Gender, Academic Stream, and Frequency of Internet Access on the Social Competence, Emotional Maturity, and General Well-being of adolescent internet users. In this design, the three demographic factors were manipulated at two levels, whereas the fourth demographic variable was manipulated at three levels. Residential Background was classified as 'A' (A1 for Metropolitan and A2 for Non-metropolitan), Gender as 'B' (B1 for Male and B2 for Female), Academic Stream as 'C' (C1 for Science and C2 for Commerce), and Frequency of Internet Access as 'D' (D1 for Regular, D2 for Moderate, and D3 for Infrequent).

The initial sample for this study comprised 480 teenage Internet users enrolled in various senior secondary schools in Delhi and Bahadurgarh. The sample comprised both male and female adolescent students from the Science and

Commerce academic streams. A stratified multi-stage random sampling method was employed to get the data. Delhi was chosen to represent the metropolitan area, whereas Bahadurgarh was designated for the non-metropolitan area. Delhi and Bahadurgarh were separated into five zones: east, west, north, south, and central. A compilation of educational institutions in Delhi and Bahadurgarh was acquired from the relevant District Education Officer (DEO) for each zone. To achieve an adequate stratification, 20 schools were randomly chosen using a lottery approach from the list. Only adolescent Internet users who completed all measurement instruments were included in the sample. Twenty-five adolescent internet users from each school were chosen for the study. A sample of 480 adolescent Internet users was sufficiently representative of the population in both Metropolitan and Non-metropolitan areas for the study. The entire sample was segmented at each level in accordance with the study's design.

Results and data analysis

Table 1: Use of social Networking sites on are gular Basis

S. No	Area	Metropolitan	Non-metropolitan
1.	Yes	130(54.00%)	65(28.00%)
2.	No	110(46.00%)	175(72.00%)

According to Frequency Table 1, 54.00% of teenagers in metropolitan areas reported regularly using social networking sites, but 72.00% of teenagers in non-metropolitan areas did not. According to the findings, teenagers' new buddies are social networking sites like Facebook and Orkut.

Table 2: Sorts of web sites visited in the Last two months

S. No	Area	Metropolitan	Non-metropolitan
1.	Chatting	45(18.00%)	34(15.00%)
2.	Sports	18(06.00%)	24(10.00%)
3.	Watch videos/Movies	30(13.00%)	32(13.00%)
4.	Educational	43(18.00%)	50(20.00%)
5.	Download Music	44(18.00%)	30(12.00%)
6.	Search Directories	24(10.00%)	15(06.00%)
7.	Games	20(09.00%)	40(16.50%)
8.	Pornography	04(02.00%)	05(02.50%)
9.	News	12(06.00%)	10(05.00%)

Regularity The frequency distribution of teenage respondents who lived in and did not live in a city across the types of websites they visited during the previous two months is shown in Table 2. In the past two months, just 2.00% of urban respondents chose pornographic websites, whereas 18.00% of adolescents in metropolitan areas accessed websites for conversation, education, and music downloads. Subsequent investigation revealed that in the previous two months, 20.00% of adolescents from non-metropolitan areas visited websites for education, followed by those for gaming (16.50%) and chat (15.00%). In the past two months, 2.50% of adolescents from non-metropolitan areas reported visiting pornographic websites.

Table 3: Most Frequently used internet Application

S. No	Area	Metropolitan	Non-Metropolitan
1.	E-mail	50(21.00%)	40(17.00%)
2.	Play Games	10(05.00%)	36(15.00%)
3.	Online Chat	35(14.00%)	62(26.00%)
4.	Download Music	35(14.00%)	24(10.00%)
5.	Adult Sites	-----	-----
6.	Watch Videos/Movies	60(25.00%)	28(11.00%)
7.	Search Directories	50(21.00%)	50(21.00%)

The frequency distribution of the most commonly utilized Internet applications among adolescents in metropolitan and non-metropolitan areas is shown in Frequency Table. Twenty-five percent of metropolitan adolescents said that their favorite Internet application was watching videos or movies, followed by e-mail (21.00%) and search directories (21.00%). In contrast, non-metropolitan adolescents said that they preferred search directories (21.00%), online chat (26.00%), and emails (17.00%). The trends for the most popular Internet applications among teenagers are shown in the table.

Table 4: Summary of ANOVA for 2x2x2x3 Factorial Design of emotional maturity

Source of variation	Sum of Square	df	Mean Square	F	P-value	Partialη ²
A(RB)	4940.98	1	4950.98	6.66**	.010	.014
B(G)	1433.19	1	1444.19	1.94	.164	.004
C(AS)	.64	1	.65	.001	.976	.000
D(FIA)	26.94	2	13.97	.03	.981	.000
A x B	2838.17	1	2849.17	3.83	.051	.008
B x C	84.52	1	95.52	.13	.720	.000
C x D	5857.46	2	2934.23	3.95**	.020	.016
A x D	433.83	2	222.41	.30	.741	.001
A x C	4606.28	1	4617.28	6.21**	.013	.013
B x D	830.26	2	420.13	.57	.569	.002
A x B x C	523.16	1	534.16	.72	.397	.002
B x C x D	1033.25	2	522.12	.70	.496	.003
A x C x D	1166.46	2	588.73	.79	.453	.003
A x B x D	5363.35	2	2687.17	3.62**	.028	.015
A x B x C x D	574.44	2	292.72	.39	.675	.002
Within A x B x C x D	350626.66	457	743.09			
Total	6692042.00	480				
Corrected Total	380972.24	479				

**F_{.95}(1,472)=3.86; **F_{.95}(2,472)= 3.01

Conclusion

- Adolescent Internet users' social competence was found to be unaffected by the third-order interactive influence of their academic stream, gender, residential background, and frequency of internet access.
- Adolescent Internet users' emotional maturity was discovered to be significantly impacted by their residential background. The emotional maturity of teenagers who did not use the Internet in a metropolitan area was shown to be considerably higher than that of adolescents who did.
- Adolescent Internet users' emotional maturity was found to be unaffected by their gender, academic stream, or frequency of internet access.

- Gender and Academic Stream, Residential Background and Frequency of Internet Access, Residential Background and Gender, and Residential Background and Gender did not significantly interact to produce meaningful effects on Emotional Maturity.
 - Academic Stream and Internet Access Frequency were discovered to have a strong interaction affect on the emotional maturity of adolescents who use the Internet. It was shown that adolescents who belonged to the Commerce Group and used the Internet infrequently had far higher emotional maturity than other groups.
 - Adolescent Internet users' emotional maturity was found to be significantly impacted by the interaction between their residential background and academic stream. Teenagers who use the internet and belong to the Science Group yet have a metropolitan residential background were found to have much higher emotional maturity than other groups.
 - In relation to emotional maturity, there was no significant interaction between the second-order interactions of residential background, gender, and academic stream, or between residential background, academic stream, and frequency of internet access.
 - Teenage Internet users' emotional maturity was found to be significantly impacted by the interaction of residential background, gender, and frequency of internet access. It was discovered that adolescents from metropolitan residential backgrounds who used the Internet regularly, moderately, and infrequently had far higher emotional maturity than those who did not. Additionally, it was discovered that teenagers from metropolitan residential backgrounds who were moderate Internet users also exhibited higher levels of emotional maturity than others.
 - Adolescent Internet users' emotional maturity was found to be unaffected by the third-order interactive influence of their academic stream, gender, residential background, and frequency of internet access.
 - Adolescent Internet users' general well-being was shown to be unaffected by their gender, academic stream, residential background, or frequency of internet access.
 - In terms of general well-being, the first-order interactions between residential background and gender, gender and academic stream, academic stream and internet access frequency, residential background and internet access frequency, and gender and internet access frequency did not significantly interact.
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