

# Whatsapp Addiction: Trend Analysis

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**Abstract**-The use of mobile based text and multimedia messages through WhatsApp has increased with high pace all over the world. However, the innovation does not lead to positive results. The study, argues that WhatsApp may spawn obvious advances in user's life but may concurrently causes some serious societal and peculiar harms that includes the addiction to the application. The study aims to determine the WhatsApp usage patterns by the students across disciplines. The results of a survey from 500 students indicate that there exists no significant difference in WhatsApp usage pattern across disciplines. Moreover it was revealed that on an average one fourth of the students seems to be addicted to WhatsApp usage.

**Keywords:**Socia Media, WhatsApp, Usage Pattern, Addiction.

## I. INTRODUCTION

The Internet and mobile phones have become an indispensable part of our lives with the help of which people are now being able to connect to others almost 'anytime and anywhere'. The students and teenagers are the early adaptors of these technologies and can use it on a daily basis for several purposes. Earlier, most of the individuals use computers for playing games, searching information on the internet and to communicate with others. Nowadays, the use of computers, especially the desktops is decreasing with high pace, as most of the people are using the laptops as well as mobile phones for all of the above said tasks. Moreover, with the introduction of smartphones, the usage of mobile phones is not limited to calling and texting but also to play games, search information, and using the social networking services. Nowadays, the social networking amenities are not limited to the web sites; rather the introduction of Android have changes the usage patterns a lot. There are many social media applications available in the android store that can be installed within seconds. Facebook is one of the most prevalent social networking service that has currently 1280 million daily active users and 1940 million monthly active out of which 92% connect through mobile devices [1]. Instead of developing the software for computers, most of the vendors are now paying the attention towards the development of android applications, chiefly the social networking applications.

As the addiction of anything is dangerous, the students and adolescence are going to be addicted towards social networking services. Therefore, various issues such as outflow of privacy and bullying are starting to arise which may have dangerous circumstances. There are now many free alternatives to the conventional SMS messaging; WhatsApp is one of the most emerging application that is not limited to text messaging rather the users can also share their voice messages, images and videos. The popularity of WhatsApp is increasing day by day,

as the statistics shows that there are 500 million users in 2014 [2] which have now increased to 1.5 billion [19]. Similarly in 2014 more than 20 billion messages have been sent per day [3], however in 2017 the statistics shows that more than 55 billion [20] messages have been sent per day. The students are so addicted that they have started using these services on-the-go, in their classrooms, etc. The addiction to social networking services is not only impairing the studies of the students, but can also exacerbate the people's personal lives. Traditionally with desktop computers, the monitoring of usage was very easy, however nowadays monitoring is very difficult as the device is always with the individual.

Although there has been widespread research on addiction of online game playing and gambling, social media usage pattern has received little attention from researchers. The study investigated the usage pattern of WhatsApp a social networking application, and fills the gap to find out the fever of using the application. Moreover the study focuses on the aims to examine the differences in Whatsapp usage habits in the diverse range of college and university students.

The study aims to determine the Whatsapp usage patterns by the University and college across different disciplines. In view of this, the study is set out to:

- Analyze the usage patterns of Whatsapp by the students of different disciplines.
- Determine the frequency of Whatsapp usage among students.
- Identify the different purposes for which students are using the Whatsapp.
- Discover the benefits of Whatsapp to these students.
- Inspect the main problems faced while using Whatsapp.
- To extract the information and explore how the usage of Whatsapp can be linked with the addiction of mobile phone.

## II. LITERATURE REVIEW

With the development of information and communication technology, the use of computers and mobile phones has increased with high pace. Also the patterns of using these technologies have been changed a lot. In this day and age, the internet is the solitary place where almost everyone visits daily. The usage habits of internet have also been changed in high proportion. For instance, conventionally the internet was generally used for searching the information, however nowadays the basic purpose for using the internet is accessing social media sites. As stated by [4], if a young man says that he is surfing the Internet, then he is likely to be browsing social media or social networks. It is also identified by [5] that computers were originally developed for adults; however

teenagers have effusively hugged the technology for their own purposes. Moreover, the adolescents are typically the family connoisseurs on how to use the electronic and social media. It is further reported by [6], that nowadays the mobile phones are not just used for the purpose of calling but most of the people use them for a wide variety of tasks such as searching information, playing games, using social networking sites, etc. [7] Surveyed 92 undergraduate students about their daily usage of Facebook and reported that on an average each student use Facebook for 30 minutes during the day. The [8] in their study surveyed 469 social networking sites users of an age of 13 and 14 and discovered that peer and parental arbitration plays a mammoth part of in young adolescents internet usage habits. The findings also suggested that the discussion about internet and social networking sites among peers is directly related to revealing personal information on these sites.

The use of social networking services reveals the privacy, as these types of services generally share the information about the last login. Also the habitual users generally write their present status about where they are and what they are doing, which also discloses the privacy of the user. In a study of Whatsapp users [9] reported that the status information is simply the sufficient entity to detect the daily routines, eccentricities, inappropriate conversation times of mobile messaging, or chat associates. The [10] reported that teen use of SNS has both positive and negative effects. Positively, teens are afforded a place to enhance group identity, express themselves, connect with others in a safe space, and develop digital communication skills. Negatively, adolescents are subject to pervasive comparison, evaluation, and the tendency to over-disclose.

### III. WHATSAPP USAGE ON THE RISE

Now-a-days online social media such as emails, blogs, chat rooms, social networking sites, audio and video sharing sites such as YouTube and virtual reality environments such as Second Life have attracted the adolescents and young adult students in the population. The internet usage by these users is much higher for social networking than for any other purposes. Text messaging through WhatsApp has become a necessary form of communication throughout the world, and its usage and popularity is increasing at a rapid rate [11]. For some people, text messaging is the most popular means of communicating with the people around, and along with its use the use of emails, and voice calls is also exceeding [12]. On an average, young adults send 109.5 text messages per day or approximately 3200 texts each month [13]. Young adults receive an additional 113 text messages and check their cell 60 times in a typical day [14]. The introduction of smart phones has further expanded the tasks that can be performed on this newest generation of cell phones. It is expected that smart phone users will increasingly abandon traditional SMS technologies in favor of more convenient Internet-based mobile text messaging technologies [15]. As WhatsApp is equipped with sending text messages, photos, videos, and audio messages enriched with emoticons without additional service charges so, this advanced Internet-based mobile text message application have become a widely accepted and most

popular result of their affordability and convenience and user friendly norm to use.

### IV. SOCIAL MEDIA ADDICTION

In a virtual environment of electronic media the social networking sites plays an important role to raise social interactions. The communication is eased with the help of information posted which is also known as the user's profile or personal page. The profile generally includes the member's personal information including interests or hobbies with profile picture. The users can view the profiles of other members and can chat or communicate with each other. These types of interactions sometimes lead to the relationships with unknowns which may lead to many other concerns of teenagers. A study of U.S. college students [16] showed that SNSs are used for social interactions with offline consociates in order to keep attachments. Similarly another study of college students claims that SN sites are primarily used to stay in touch with family and friends [17]. With this it was argued that most of the teenagers use SN sites to make new friends [17]. In the similar manner [18] claims that about 50% of college students use SN sites to let others know about them.

### V. SAMPLING

Descriptive survey was used to capture an assorted sample of Whatsapp users. The stratified random sampling was used to draw sample from the population. A self-constructed questionnaire was personally administered to ensure the excellent response rate and to avoid misunderstanding while filling the questionnaire. The graduate and post graduate students enrolled in various courses in different colleges, universities and institutions across Northern India were encouraged to participate in the survey. The participation in the study was voluntary and students could elect not to participate in the study.

The Standardized instructions were given to all the participants. For instance, to maintain the confidentiality, the students were asked not to write their name or roll no. in the survey. Further, it was stated that responses were used for research purposes only and that information received about their responses would be kept safely. Students were given the opportunity to ask any question related to the questionnaire.

The survey has been taken from 110 participants of each discipline from Computer Science, Arts, Commerce, Education and Law. As some of the surveys were not submitted, completed or have not been filled properly, these have been considered as dead sample and were destroyed. Hence, to maintain the uniformity, 100 surveys as shown in table from each discipline have been fed in SPSS for analyzing.

### VI. RESULTS & DISCUSSIONS

#### A. Demographic Information

The WhatsApp usage pattern has been analyzed by using the different survey items. So starting with demographic information, 34.4%, 54.4% and 11.2% of the students are in the range of 13-19, 20-25 and 26-35 respectively. The participants include 48% of male students and 52% female students. The majority of students belong to the middle class family with

“monthly household income” ranges from 30000-80000. The 54.4% of the students are undergraduate 34.4% have passed their high school and the 11.2% of the students have passed their PG class. When asked about their parent’s occupation 33.3% are from business families, 12.2% are from private sector, 32.3% of the parents are from govt. sector and only 22.2% of parent’s are not working, from which more than 95% are the mothers who are house wife’s.

**B. WhatsApp Usage by Students**

After comparing the demographic information, first of all the broad difference between the Whatsapp usages across disciplines have been found by using the chi-square analysis. The p-value comes out to be 0.644 which clearly indicates that the null hypothesis that there is no significant difference in Whatsapp usage patterns among students of different disciplines is accepted. Thus, Whatsapp usage pattern across disciplines is statistically similar. Further, it was broadly found that 8.6% of students have never used Whatsapp, 37.8% are rarely using it and 53.6% of students responded that they are usually using Whatsapp as shown in the Figure 1.

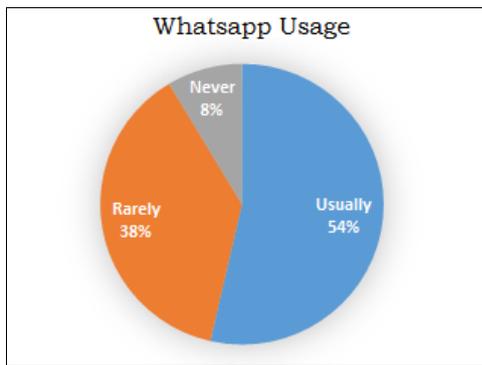


Fig. 1:

Moreover the discipline wise usage frequency have also been found as shown in the Figure 2, and it is undeniably clear that there is a minute difference between the Whatsapp usages across disciplines.

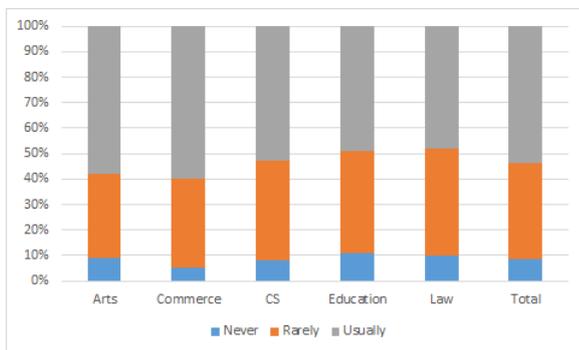


Fig. 2:

A very little frequency of students are not using Whatsapp nowadays. And when they were asked about the reasons of not using Whatsapp, they highlighted many reasons. Henceforth 4.4% of students responded that “They don’t have a smartphone”, 2.6% said that “They are very busy” and 1.6% said that “They don’t like it at all”.

Skipping the users who are not using the Whatsapp the rest of the participants according to the disciplines are 92 students of CS, 91 students of Arts, 95 students of Commerce, 89 students of Education and 90 students of Law.

Further, going inside the survey the hourly usage frequency of the students of each discipline have been analyzed and was found that there is the negligible difference between their hourly usages. That is the students of different disciplines spent similar amounts of time on using Whatsapp and no statistically significant differences emerged as shown in the Figure 3.

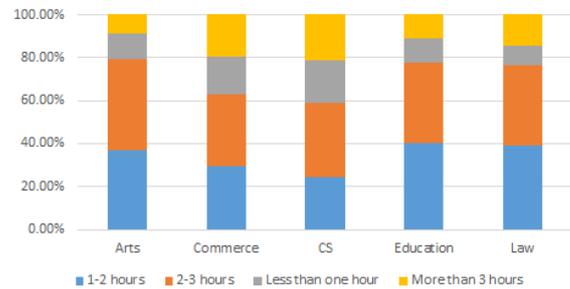


Fig. 3:

**C. Experience of Using WhatsApp**

Moreover, when asked “How long have you been a Whatsapp user?” most of the students responded that they are using it for more than 1-year and a very little proportion of students responded that they are new to Whatsapp.

**D. Purpose Of Using WhatsApp**

When the purpose of using Whatsapp scale have been analyzed, it was found that majority of the students (38.54%) use Whatsapp to keep in touch with their family and friends, followed by 17.61% to Reduce Boredom, 15.05% to keep updated with outside world, 14.29% to Share Educational Information, 9.75% to Relieve Stress and at last (4.73%) of the student use it to make new friends.

**E. Usefulness Of WhatsApp**

The participants of different disciplines reported differently about the usefulness of WhatsApp in their lives, as shown in Figure 4. However, overall 29.54% of the students responded that working of Whatsapp is always useful, 66.52% indicated that it is sometimes useful and 3.93% replied that working on Whatsapp is not useful at all.

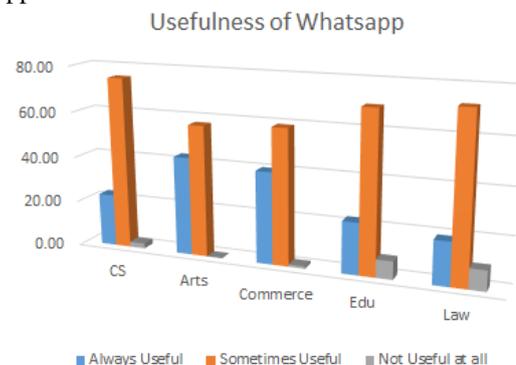


Fig. 4:

F. WhatsApp For Educational Purposes

While analyzing the query about the use Whatsapp for educational purposes, a little variation in results have been found as shown in the Figure 5. It is very much clear that students of arts and commerce are least bothered about the use of Whatsapp for educational purposes. However, the students of CS, Education and law use it more for education. Moreover, in general, on an average 4.16% of students responded that they always use WhatsApp for Education; however 9.63% of students indicated that they have never used it for educational purposes. Maximum number of students reported that they sometime use WhatsApp for educational purposes.

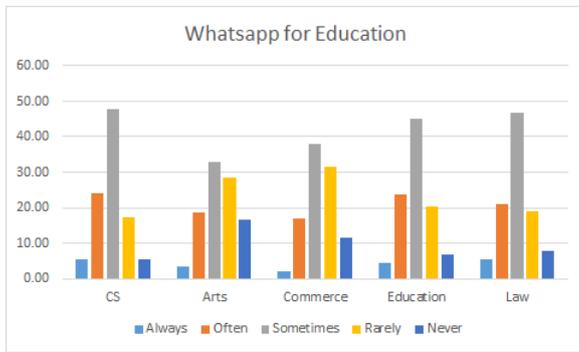


Fig. 5:

G. Hypothesis: There exists no significant difference in Whatsapp usage pattern across disciplines.

When the participants were further asked about the reasons of using Whatsapp anchored with the options to Relieve Stress, Reduce Boredom, Make new friends, Keep in touch with my family and friends, Keep me updated with outside world, Share Educational Information. As this is the main part of analyzing Whatsapp usage pattern of students across disciplines. The chi-square data analysis have been applied to the above said options which returns the p-value as .739, which is greater than 0.05. So the null hypothesis that there exists insignificant difference among the Whatsapp usage pattern across disciplines is accepted. Therefore, Whatsapp usage pattern among students of different disciplines is statistically similar. Moreover, to identify the difference between the Whatsapp usage patterns across disciplines the Chi-square value of the different items reflecting the features of Whatsapp have been analyzed as shown in the Appendix-A. So it is very much clear that there exists no significant difference among the students of

Appendix-A

How often do you use following features of Whatsapp ...	Chi-Square (p)
Individual Chat	.813
Group Chat	.997
Sharing Audio	.999
Sharing Video	.715
Sharing Images	.963
Share your own Photos or Videos	.458
Sharing News Updates	.840
Viewing other's profile pics	.986
Viewing other's status	.511

different disciplines in use of various features of Whatsapp. This means that frequency of usage of different features of Whatsapp is statistically same across the disciplines.

Research Question: How many students are addicted to the use of Whatsapp?

To clarify if the user is a Whatsapp addict or not, some questions have been asked in the scale and are then analyzed. For instance when asked "How many times in a day do they pick/check their phones just for using Whatsapp, the 17.4% of students replied it as "More than 100 times". After analyzing another part of the scale that is shown in the Figure 5, it is very much clear that on an average one fourth of the students seems to be addicted.

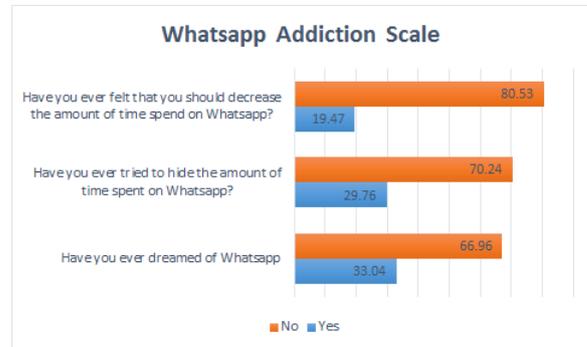


Fig. 6:

Furthermore, to identify the addiction traits in depth, another set of items of the scale revealing Whatsapp addiction have been analyzed as shown in the Appendix-B. After analyzing all of the responses, it is again found that almost one fourth of the students appear to be addicted.

H. LIMITATIONS AND FUTURE RESEARCH

The study has some limitations that are deliberated while interpreting its results and may be addressed for future research. Firstly, the outcomes are limited to the northern region of India. Therefore, the research could be extended to different regions to test for cultural invariance. Such research requires data from different regions from all over India or may be further expanded to conduct cross country studies. Finally, this study used manual data collection strategy, however to collect the research data an online data collection method can be used.

Commenting on other's pics	.991
Post your Whatsapp status	.962
Creating a group	.792
Sharing Educational Information	.175
Deleting your conversation with someone	.983
Changing your Whatsapp profile pic	.976

### Appendix-B

How often you ...	Usually	Rarely	Never
Use Whatsapp while you are in social gathering?	42.6%	38.8%	10.4%
Use Whatsapp while taking meals?	26.6%	36.2%	28.6%
Day-dreamed of Whatsapp	15.4%	36.8%	39.2%
Have been scolded by your parents for using Whatsapp?	14.2%	39.6%	37.6%
Felt tense, irritated or stressed if you not able to use Whatsapp?	16.8%	27.8%	36.8%
Hear yourself saying "Just a couple of minutes and I will stop", while using Whatsapp?	21.6%	39%	30.8%

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