### Fear of Missing out, Social Media Engagement, Smartphone Addiction and Distraction Moderating Role of Tracking Apps in the Youth

Srimanth Vempati <sup>1</sup>, Manoj Kumar Bhuma <sup>2</sup>, and Jinan Fiaidhi <sup>2</sup>

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### Abstract

Smartphones offer high portability and web availability simultaneously which has prompted a considerable increment in the number of people using social media progressing, particularly the 'Twenty to thirty- year-olds'. The over utilization of smartphones and social media has resulted in a few issues which include people's mental conditions. Our proposed paper shows on how much time the users spend time on their smartphones and social media, which seems to be increasing rapidly everywhere and considered to be a social problem, arising from a lack of offline social network that results in decreasing social engagements in real-life. This paper includes a survey android application from which user's survey data is analyzed, to look at the cause and effects of the utilization of smartphones and social media.

<sup>&</sup>lt;sup>1</sup>Lakehead University

<sup>&</sup>lt;sup>2</sup>Affiliation not available

# Fear of Missing out, Social Media Engagement, Smartphone Addiction and Distraction: Moderating Role of Tracking Apps in the Youth

Srimanth Vempati
Student id:1117462
Group 7

Masters of Applied Computer Science
Lakehead University
Thunder Bay, Ontario, canada
email: svempat1@lakeheadu.ca
Instructor: Dr. Jinan Fiaidhi

Manoj Kumar Bhuma
Student Id: 1101603
Group 7
Masters of Applied Computer Science
Lakehead University
Thunder Bay, Ontario, canada
email: mbhuma@lakeheadu.ca
Instructor: Dr. Jinan Fiaidhi

Abstract: Smartphones offer high portability and web availability simultaneously which has prompted a considerable increment in the number of people using social media progressing, particularly the 'Twenty to thirtyyear-olds'. The over utilization of smartphones and social media has resulted in a few issues which include people's mental conditions. Nowadays, there are exceptional mobile applications that assist users to track their utilization of smartphones and protect them from potential dangers that caused to their mental lives. Our proposed paper shows on how much time the users spend time on their smartphones and social media, which seems to be increasing rapidly everywhere and considered to be a social problem, arising from a lack of offline social network that results in decreasing social engagements in real-life. This paper includes a survey android application from which user's survey data is analyzed, to look at the cause and effects of the utilization of smartphones and social media. Our paper results have significant ramifications for structuring powerful mobile application based mediations to spare voungsters from potential dangers to their psychological wellness, efficiency, and security in doing their daily routines.

**Keywords:** Smartphone, FOMO, Fear of Missing out, Social Media Engagement, Smartphone Addiction, Smartphone Distraction, App Usage Tracker, Survey, App sheet, Google Form, Distraction

### I. INTRODUCTION

In the late decades, with the advancement of information technology, particularly with the quick expansion of Internet-based social media life, the methods for interpersonal communication have radically changed. The social media platforms and the simple access to the Internet achieve the potential for the increase in the number of social media users, in particular, the silly and over the top utilization of web-based life to the degree that it meddles with different parts of the day by day life. Social media addiction has been seen as

related to a large group of enthusiastic, social, well being, and performance problems. While a smartphone, tablet, or PC can be a massively productive tool, habitual utilization of these gadgets can meddle with work, school, and connections. At the point when you invest more energy in social media life or messing around with your smartphone, than you do communicate with individuals in real-time, or you can't prevent yourself from over and again checking messages, or applications—in any event when it has negative outcomes throughout your life—it might be an ideal opportunity to reevaluate your innovation use. Smartphone addiction which is also known as "nomophobia" (dread of being without a smartphone), is frequently filled by an overuse of Internet issues or fulltime Internet dependence issues. All things considered, it's seldom the smartphone or tablet itself that makes the impulse, but instead the games, applications, and online universes it associates us to.

Social media and smartphone users have developed exponentially in the past decade. There are currently 2.34 billion social media and smartphone users around the world. Contrasted with everyone students going to schools, colleges, universities nowadays are the heaviest users of the smartphone and social media. The high pace of smartphone penetration is said to be one of the predominant factors behind such an increment in dynamic social media users. The propelled functionalities of the smartphones furnish their users to get attracted to them and use it for a very long time. Ironically, smartphones became the first most thing that we check after waking up and the last thing that we check before sleeping. While there are a few advantages to these smartphones, they don't come without their issues. It has both constructive and adverse impacts on individuals' day by day schedules, propensities, social practices, family relations, and social communications. It is a known fact that more usage of smartphones and social media causes mental illness and several health problems [1]. Most of us utilize their cell phone every day, surfing the web, accessing messages, enjoying music, watching videos, taking photographs, reading the news, compose instant messages and

so on for many other reasons. Presently all these are possible utilizing one single device. Whereas 25 years back, some of them were not by any means conceivable. Hence, smartphones have changed how we live quite drastically.

To prevent excessive use of smartphones which causes negative impacts, an assortment of mobile applications is available these days. These applications contain features like tracking the time spent on each mobile application, killing or limiting the (push-up) notifications from specific applications and reducing cell phone utilization by locking or in any event, turning it off after a predetermined time frame. A large portion of the applications likewise give reports and graphs on the cell phone utilization. Utilizing such applications is referred to as a self-improvement technique that helps the cell phone users control their excessive usage and in this way shields them from its negative impacts.

Understanding the causes, results, and cures of social media addiction is consequently of principal significance. Smartphones and their applications play a key job in social associations, feeling emotions, data transmission, and human accomplishments. However,the ominous side of smartphone use is the danger of adverse physical health conditions because of their electromagnetic fields and remote connection. Additionally, they have negative consequences for mental and emotional wellness conditions, including enthusiastic practices, technostress, addictive behaviors, nomophobia, and the fear of missing out (FOMO). Most basic psychological need satisfaction is positively associated with the fear of missing out. Let us look into some more details on what exactly FOMO is in Section 2.

### II. THEORETICAL BACKGROUND

### A. FEAR OF MISSING OUT(FOMO)

FOMO is represented by the tendency of individuals to stay powerfully related to others' behavior and thoughts. during this sense, whereas influenced people do not value more highly to be unaware of current developments, social dismissal by others will prompt either physical or social distress. The Fear Of Missing Out is additionally known as FOMO. The Fear Of Missing Out is spreading wide throughout a district or a bunch of individuals within the society. A Study Report Suggests that fear Of Missing Out(FOMO) is one of the most reasons for social media addiction. Fear-of-missing-out (FOMO) also can be referred to as a feeling that you get when you feel that you are missing something that others are experiencing [2]. It also makes people stay up to date on what others are doing or what they are going to do. Totally different platforms might connect users to different persons and networks and provides access to different sorts of data that users might need to remain up-to-date.

Current analysis findings reveal that FOMO may be a predictor of the utilization of SNS with that users connect with people in their networks, like Instagram and Facebook. FOMO has conjointly been found to predict Facebook use and Instagram use.

FOMO condition has been characterized as an "inescapable concern that others are also having remunerating encounters from that one is missing or absent, FOMO is represented by the desire to stay persistently related to what others are doing". FOMO assumes a major role in individuals concerned deeply in social media. many sorts of analyses show that FOMO and pleasure are associated with one another that makes individuals utilize smartphones and social media for a really very long time. an individual with high levels of FOMO relates to higher levels of social media engagement. Figure 1 is a sample picture of how FOMO impacts people.



Fig. 1. FOMO in team Collaboration

### B. IMPACT OF SOCIAL MEDIA

Social media is a web-based innovation to encourage social interaction between a huge gathering of individuals through some sort of network. In a like manner generally utilized system is the Internet. Social media is developing quickly and turning into an essential piece of regular day to day existence, as a result of advancement in technology. This staggering development is because of the expanding use of advanced smartphones like BlackBerrys, O-Mobile, Androids, and iPhones [3]. These Smartphones make it simple to get to any social media platform from anyplace for all intents and purposes. In today's world, it is evident that social media plays a significant job in affecting our way of life, our economy and our general perspective on the world. Social media is another gathering that carries individuals to trade thought, associate with, prepare for a cause, look for advice, and offer direction. Social media has removed communication hindrances and made a decentralized communication channel and open the entryway for all to have a voice. Ironically, Social media is transforming us into one of the most antisocial generations.

It is essential to address the positives and negatives that social media has on young people and families. While numerous things have both a positive and negative impact, many still don't see the genuine effect behind internet based life that is social media, and how it profoundly impacts our behavior. Therefore Social media can be compelling in society in both positive and negative ways. It just keeps every individual in contact even though they stay far away. It lets individuals share fun, intriguing and educational substance. It gives organizations an approach to draw in with clients.

While it is essential to address and comprehend the full effect of social media on young people, it is likewise important to consider the parts of how it influences personal communications day today, of how it genuinely influences framing connections and keeping up connections [4]. To comprehend these complex effects, we have to think about all the positives and negatives, with the goal that we may comprehend everything behind the impact social media brings.

### III. RELATED WORK

Burke, Marlow, and Lento, 2010 in their research mention that social media forms a platform to provide active communication among different groups of friends, acquaintances and also gives access to a set of new information.

Lankshear and Knobel (2011) depict social media as better approaches for taking an interest and conveying that depend on a joint effort, remixed writings, and independently publishing. According to Kietzmann, Hermkens, McCarthy, and Silvestre, 2011; Mangold and Faulds, 2009, if we consider the field of marketing, the development of Internet-based social media has made it workable for people to speak with others about items and the organizations that give them with best outcomes.

Similarly, Valenzuela, Park, and Kee, 2009, studied that interpersonal organizations could likewise empower people to create standards of trust and correspondence, which are important for successful engagement in collective activities.

Kross et al's. (2013) study showed that Facebook use could foresee decreases in two parts of emotional prosperity: How individuals feel minute to minute and how fulfilled they are with their lives [5].

Przybylski et al. (2013) proposed that people with low fundamental need fulfillment for competence, self-rule, and relatedness have more significant levels of Fear of Missing Out (FOMO).

Smartphone Addiction is an expansion of Internet Addiction (Kimberly, 1998), which may likewise include different types of conduct packaged through the gadget, for example, gaming, long-range informal communication, and online shopping (Block, 2008; Montag et al., 2015a). Smartphone and social media addiction extensively allude to the condition prompting uncontrolled cell phone use regardless of the experience of negative repercussions on personal and public activity.

## Some statistical data on smartphone and social media usage:

As indicated by ISTAT, 85.8 percent of Italian young people age 11–17 years have normal access to smartphones, and over 72 percent access the Internet by means of cell phones. More young ladies (85.7 percent) use cell phones contrasted with young men. In addition, late examinations announced that 76 percent of young people utilize social media, with 71 percent of them utilizing more than one mobile application. Practically 50 percent of young people are continually online.

Online communication, education, and entertainment are progressively occurring on the web [6]. In Europe, Euro stat investigation confirms an extraordinary development of Internet access from 55 percent in 2007 to 86 percent in 2019, and Internet access through a cell phone from 36 percent in 2012 to 59 percent in 2016.

It is in 2017 that an official site called "We Are Social" has conducted research on how many portions of people are using social media and reached the following conclusions:

- Among all other platforms of social media, Facebook was considered as the most used platform. The platform continues its dominance with the application of Facebook Messenger in second and WhatsApp in third place. YouTube is in fourth place.
- 2) World's population, 54 percent use the Internet. Of this 54 percent, visit social networks.
- 3) Social media users in the world had increased by 5 percent compared to 2016 data.
- 4) Turkey is 12th in the total number of social media accounts. Turkey ranks 9th among country countries that spend the most time on social media.

The purpose of these different kinds of researches is to examine the influence of social networks on smartphone addiction and the impact of smartphone addiction on individuals' level of social engagement. Children are vulnerable to addiction to new media, and their social behaviors have an increasing impact on the societies in which they live as they grow [7]. These researches also suggest that parents play a key role in preventing media addiction among children by taking special care and protection.

### IV. SURVEY OF SMARTPHONE USAGE

In this section, we demonstrate the actual survey conducted with the obtained data for our model and show a summary of each survey item.

### A. Real-Time Data:

People are becoming more hooked to cell phones. Doesn't matter adults or youth, at mealtime or events, the problem of smartphone addiction has become extremely severe. Many people do not know they waste a great deal of time on their smartphones and games every day. We can better understand the use of our cell phones using the Screen Time. If it's a game or an app, you become a person with time-management skills when downloading Screen Time. A good person can be better at controlling his time.

Generally, we don't know we're wasting a lot of time on those programs. With Screen Time, you can raise knowledge of your phone patterns and make changes accordingly. You might have watched too many videos, or you might have spent too much time on social networks.

In this survey, we got actual users data from few users of smartphones as subjects of the survey. Fig 2 shows statistics of data usage. Accordingly, we have done our part of the research with the provided data analysis. These statistics show the usage history of applications from a user. This clearly shows how long the user is using applications and which are mainly impacting in his real life. We observed these top 3 social media platforms was impacting user for causing with FOMO [8]. These media platforms may vary but the impact caused by these is the same.



Fig. 2. Real Time Data Usage

Usage of social media is troublesome where this user uses social networking sites as an effective tool for dealing with pain, isolation or depression. Social networking use offers constant incentives for these users that they don't get in real life, which ends up getting more and more involved in the practice. This constant use gradually leads to numerous behavioral problems, such as avoiding real-life relationships, obligations for work or education, and physical well being, which can then intensify unhealthy moods for an adult. This then encourages people to engage ever more in the conduct of social networking as a way to alleviate dysphoric mood states.

### B. Usage Survey Application

We have created a mobile application to survey smartphone usage to estimate the impact of smartphones and social media on users.

AppSheet provides a no-code development platform for application code, that permits users to make a mobile, tablet, and internet applications using information sources like Google Forms, Google Drive, DropBox, Office 365, and different cloud-based program and info platforms. This application is made using google form with an add on feature of Appsheet.

Steps to build this app:

- 1) We tend to initially use a Google form to style our survey. we tend to used many dropdown menu queries that are common to Google Forms and translated well to AppSheet with the add-on.]
- 2) Then we connect it to AppSheet using the Google Forms AppSheet add-on. AppSheet recognized the form's question sorts and enforced the corresponding column sorts within the Editor and therefore the app.
- we tend to used fields like age, Purpose of smartphone usage, how will the user feel once their phone shuts down, etc.
- 4) Page breaks permit the user to navigate to the subsequent set (page) of queries. This may be done inside the Google form itself.

The respondents were divided into 2 separate classes reckoning on whether or not or not they use their usage tracker applications to trace and regulate their device. The respondents who use such mobile apps are called the "self-help" class, and during this analysis, the respondents who don't use such mobile device assistance are classified as the "No-help action" class [9].

Other Findings from our survey:

- The relation between Smartphone hooked users and experiences of the basic cognitive process was systematically larger than that of general Smartphone use with basic cognitive process.
- 2) when dominant for the usage between general and addictive Smartphone use, the tendency to use Smartphone App usage trackers had a pervasively robust and distinctive positive relationship with all of our measures.
- 3) This study additionally shows that individuals with low psychological desires have a high worry of missing out that ends up in higher levels of social media engagement. The high levels of social media engagement then cause smartphone addictions and smartphone distractions.

### V. RESULTS

This study utilizes knowledge received by users survey to look at the cause and effects of the smartphone and social media. As shown in Table one majority of the respondents are eighteen to twenty-seven years old. in step with the pew center, ages eighteen to twenty-nine have invariably been the foremost possible users of social media by a substantial margin..

Category		Frequency	Percent
Gender	Male	33	66
Gender	Female	15	34
Age	<18	0	0
Age	18-22	29	60.4
Age	25-34	11	22.9
Age	35-45	8	16.6
Age	45<	0	0

The survey results make it clear that, by age group, the way individuals communicate with their smartphones during the day, and in their lives and relationships, is very, very different. A majority of smartphone owners use their phones to stay upto-date and communicate and be updated about events in their local community; smartphones also help users navigate the world around them, from turn to turn, driving directions to help with public transit.

Category		Frequency	Percent
Purpose Of Usage	Games	8	16.6
Purpose Of Usage	Marketing	4	8.33
Purpose Of Usage	Entertainment	29	60.4
Purpose Of Usage	News	7	14.5
Apps Installed	5-10	8	16.66
Apps Installed	10-15	11	22.91
Apps Installed	15+	29	60.41

From our study, 30 percent of 18-24-year-olds said "I spent time on my smartphone for news and reading books" but

nearly 60 percent said they're using them for entertainment purposes, and only a few said they're using them for company.

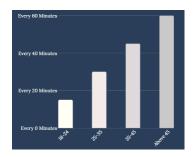


Fig. 3. Average Time Users check their Smartphone

Our survey bust down the screen time habits of men and girls to spot the variations. Our results showed that whereas men have longer average screen time (187 minutes) than girls (167 minutes), they shared a similar most-used app, albeit in several orders: Facebook, Instagram, WhatsApp, and etc.

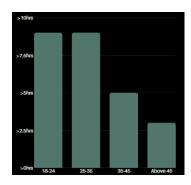


Fig. 4. Average Time users spend on their smartphone

There has been a great difference between the users who uses tracker application in their smartphone and who does not use. The main advantage of these apps is people give time for their real life. It can be assumed that this group of users are self-motivated and are already less likely to get affected by the negative effects of the Smartphone.

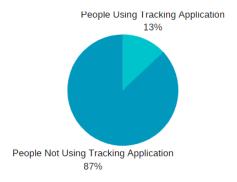


Fig. 5. Tracking Application Users

### VI. CONCLUSION

In this paper, we developed an android application to survey actual users and their smartphone usage. Based on this analysis we found out that people are highly affected by smartphones and social media which eventually resulted in FOMO. This study mainly involves the difference between the impacts created by smartphone usage tracking applications. Users with this kind of application has less impact and contact with their smartphone rather compared with other users. We found that only Smartphone/Social Media is not the cause for addiction, it actually depends on the individual and the purpose of usage. This research states usage tracker applications helps in limitation of Smartphone.

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