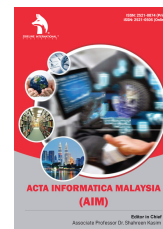


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REVIEW ARTICLE

EXPLOITATION OF INTERNET BY MILLENNIALS ENSUING COVID PANDEMIC

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ABSTRACT

21st century has been era of digitalization which is totally assisted by internet networks. Internet has been developing its wings in every possible way in order to make human life simpler, luxurious and entertaining. Withholding many beauties, it has been favoring all generation people. But young millennials who are born simultaneously with the emerge of internet technology are found to be more fascinated and attracted by this technology and thus are in the 1st rank in internet use. The COVID-19 pandemic has something powerful to change many things. Along with human health and psychology, it had also changed the internet use pattern of the people worldwide. In this review, impact of pandemic on internet use behavior mostly by college studying youths is analyzed. Time spent by surfing internet is hiked unexpectedly due to this pandemic as daily scheduled has of many citizens is altered. It is found that some of the students have taken this as an opportunity to explore and develop knowledge about new technologies. Online class has been normalized in many places and they are not deprived of education. But various disastrous impact is also seen. Third world countries students are having problem in study due to poor internet management. Students are facing problem of Internet Addiction using it all time. Mental stress, anxiety, aggressiveness, etc. can be seen when they are disconnected from internet for certain period of time. Here seems to drag attention of socialists and psychologist towards measures that needs to be adopted to minimize these dreadful impacts of internet use and emphasize more on benefits.

KEYWORDS

Addiction, COVID, Internet Use, Psychosis, Youths.

1. INTRODUCTION

Internet has now become a part of everybody's life as users of online social media has increased remarkably and rate is increasing day after day all over the world (Arab & Díaz, 2015; C. Cheng & Li, 2014). Digitalization has been successful in branching itself heavily and almost in every sector. Starting from the connecting networks (Facebook, Instagram, LinkedIn, Twitter, Snapchat, Gmail, etc.), going through multimedia systems (YouTube, Netflix, Amazon Prime, iTunes, Tiktok, etc.), blog sites (WordPress, blogger, etc.), geolocation systems (Google earth, foursquare), online shopping sites (eBay, honey, amazon, etc.), to educational sites (Research gate, Coursera, Springer, etc.), internet has everything everywhere. Only because of this digital network we are able to communicate easily with unknown people and in many cases with the one lost earlier; virtual gathering of family and friends is possible which triggers human emotion (Sirola, Kaakinen, Savolainen, & Oksanen, 2019).

With the emerging new digital era, communication and social relationship between people has become stronger and new cultural standards are being generated. This digitalization of information has brought great change in almost all area of life (Baym, 2015; Schmidt & Cohen, 2013). Online football and soccer games has turned playground no green, virtual videocall with beauty filters have made people forgotten real curves of the cheeks, online shopping has degraded quality evaluating skills, online conferences have little role in upliftment of leadership quality. Yes, this generation is facing such changes as they are born on digital age. Social media regulates our emotions. Youths, millennials, generation Y or digital

natives whatever we call are the highest user of internet from past few decades. Today's millennials are the one whose growth occurred simultaneously with growth of technology. So, they are the most familiar with technology and digital networking (Bennett, Maton, & Kervin, 2008).

On 11th March 2020 World Health Organization (WHO) confirmed COVID-19 as a pandemic (Cucinotta & Vanelli, 2020). Pandemics surely has infinite consequences and outcomes (Keys, 2000). Whole world is facing the crisis and all sectors are affected by it. Dependency on internet and frequency of its use has unimaginably increased during this pandemic (Sun et al., 2020). People are full of leisure time. Education sector has also faced great tragedy due to this pandemic (Franchi, 2020). School, colleges and universities are shifted online which has increased their time spend in internet and digital sites.

Digital transformation had its journey started long way before the pandemic emerged but lockdown surely has certain impact on the form it will transform to. Our digital usage pattern has changed as working hours is also changed into free time but the change it makes in our life depends on how we response and handle this trend of extreme internet use (Pandey & Pal, 2020).

2. LITERATURE REVIEW

Internet can be really helpful in building programs and creating platform to minimize risks factors as like in time of this pandemic. Also, contributing towards continual pace of all possible technological development,

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internet services had made possible to dupe various crisis like helping in continuing education of students through virtual learning (Gómez-Galán, Martínez-López, Lázaro-Pérez, & Sarasola Sánchez-Serrano, 2020). But various factors are there which is pulling things negatively and changing psychology, way of perceiving things and overall change in behavioral act.

2.1 Character uniqueness in millennial students

Students have been using internet from earlier period of their life. Various studies (Galán, 1887; Lim & Richardson, 2016) have found that young students are interested in use of social portals and sites for educational purpose. (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015) studied that students are not limited on single social networking site and among many Facebook remained the most preferred network. In the survey done by (Dahlstrom, 2011) of 3000 students across United States, it was found that out of total college students 90% were Facebook users and 37% were twitter user. Though not all students use internet in same way. On the other study (Zhong, Hardin, & Sun, 2011) related use of Facebook with personality trait i.e. people with high technological knowledge and information spends more time on Facebook while the one on the process of learning and cognition use limitedly. Pandemic has shifted physical classes to online classes. (Zheng, Khan, & Hussain, 2020) studied that virtual interaction can help eager and innovative students to uplift their web based social knowledge and capital. Internet based linkage has positive impact on online interaction of students and teachers. Digital learning brings something change in their will and perceptions during crisis. Students who have problem solving capacity and innovative are found to adopt digital education by creating virtual communities and social networks online (Spitzmuller, Sin, Howe, & Fatimah, 2015). Self-confidence is another key for online interaction of students. As this pandemic has triggered and have certain impact on life of every individuals, the one with high interactive capacity, anxious and social personality is significant in the participation of students in online learning (Major et al., 1990; Zhu, Kuang, Kennedy, & Mok, 2018).

Millennials have different types of bonds with peers, family, society and their way of seeing the world is somehow different from older and younger generations. Pandemic too may be seen with different perspective by them. (Major et al., 1990) concluded that family support and the relationship between family member influences personal character which helps to boost mental health of an individual in the harsh situation like this pandemic. Study strategies, time management skills, actualization and academic proficiency are the key factors of academic completion (Sansgiry, Kawatkar, Dutta, & Bhosle, 2004). Not all students are same and has same potential to give out on academics. The one with ability and guts to react wisely in every situation and influence the social environments are consider proactive (Bateman & Crant, 1993). The students with such proactive personality can subsist and move peacefully without hampering their psychological status during this stressful environment of COVID (W. Cao et al., 2020). We can't say that only influencer have coping mechanism but this quality will surely help to some extent in making situation quite simpler. Brzozowski and Cucculelli (2016) says proactive characters have great role in wise decision making in dilemmatic and poor situations. (Han, Lee, & Yoon, 2008) mentioned this personality is linked significantly with the educational output of individuals with increased technological knowledge and more competitive nature.

With social networks being used as a medium of social communications, socialization pattern of young university students has turned out different from previous generation. They have high chance to be victimized by the risks posed by virtual networks (Peris, de la Barrera, Schoeps, & Montoya-Castilla, 2020). New generation can spread bitterness and feeling of envy, harassment, misunderstanding (Marín-Díaz, Vega-Gea, & Passey, 2019), negative personal self-esteem leading to anxiety and depressive symptoms (Kim, Jung, Ahn, Kim, & Choi, 2020). This generation being the highest users of internet, are in the risk to be the one to intake toxic trait from internet when mis leaded.

2.2 Changes affecting internet use pattern

COVID-19 has limited physical mobility of people and everybody are forced to stay in their private spaces. Being confined in same place has obviously increased the social networks consumption rate (Galea, Merchant, & Lurie, 2020). Also, this has created a situation of mental alteration and change in way of thinking. Day to day activities is changed and our priorities for specific work has changed and altered.

2.2.1 Behavioral change and disorders

Isolating self has increased the possibility of addiction related to social

medias and digital networks (King, Delfabbro, Billieux, & Potenza, 2020). This kind of addiction shows weird symptoms like irritability, agitation, anxiety, loss of self-control when not connected to internet access, uncontrollable desire to hang on social sites, unhealthy intrusion in personal life including reduced physical activity and abandoning physical happiness and pleasure (J. Cheng, Burke, & Davis, 2019; Rhemtulla et al., 2016). There is seen positive connection between various disorders (substance use disorders, eating disorders, personality trait disorders, impulsivity and disorders like depression, anxiety, social phobia, Obsessive-Compulsive Disorder (OCD), Attention Deficit Hyperactive Disorder (ADHD) (Lopez-Fernandez & Kuss, 2020).

2.2.2 Psychological alteration

Many psychotic cases have arisen from the people with no disease history in past but related with COVID-19 pandemic (Huarcaya-Victoria, Herrera, & Castillo, 2020). It will be difficult to deal with such illness and this type of problem can be dangerous for long period of time mostly when this all is over and people have to go back to their normal daily routine. As everything has its dark side, these information and communication technologies (ICTs) serving the whole world with infinite social and scientific benefits if abused can be greatest threat to the world hampering personal life and psychological state of people (Lopez-Fernandez & Kuss, 2020) mostly the younger generation which are heavily engaged in it (Ihm, 2018).

2.2.3 Normalization of E- education

Colleges and universities are conducting classes online. Video conferencing sites like Zoom, Google Meet, MS Team, etc. has become popular out of nowhere. Young students enrolling in online learning platforms like edX, Coursera etc. is also seen in higher rate (Shah, 2020). There is high rate of shifting entire academic session to online mode by various universities and institutions like University of Cambridge in UK and California State system in the US (Times, 2020). No doubt virtual learning system is very efficient and fruitful compared to traditional learning in developed countries (Sife, Lwoga, & Sanga, 2007) but in developing country it could be problematic. Digital learning has been challenging in poor countries due to limited access of citizens, technologies and weak internet infrastructures (Shapiro et al., 2017). (Jurkovič, 2019) mentioned poor fit of smartphones in education in these countries and X. Cao, Khan, Ali, and Khan (2019) mentions digital classroom as unfriendly environment for them. Country like Nepal has certain limited places with well-equipped internet services. Most of the places have poor internet connective with no stability. Many students are in the situation to leave class unattended due to poor access the internet services and that has great impact on academics of those students.

2.2.4 Fearful environment

As COVID-19 has intensified its number internet is polluted with false news which has forced this pandemic entitle "an epidemic of misinformation" as it is creating dreadful environment of fear and anxiety and havocking image is set on the mind of people (Garrett, 2020). We can hear more news of deaths and scarcity rather than that of recovery though the percentage of recovery is much higher than death rate. (Mayou & Farmer) observed unusual panic and feeling of helplessness fear of death among people as a result of COVID-19 misinformation; termed to corona phobia. It is proven true that everything has its dark side.

Being climate all around full of panic and vulnerable health condition, majority of people have taken internet as a escape from this all stress (Király et al., 2020). Psychological and mental change might have dragged people more towards internet use with the hope of diversion of mind from negative thoughts.

2.3 Problematic internet use (PIU) and Internet Addiction (IA)

Excessive use of internet is always a matter of problem. Use of digital technologies have many benefits and advantages but side by side has risks too (Gómez-Galán, Martínez-López, et al., 2020). Any problem related to internet significantly hampers young generations and students more. Kirschner and Karpinski (2010) found negative impacts on study time spent per week and GPA of students by the use of Facebook and concluded same as (X. Cao et al., 2019) that time spent on social media is indirectly proportional to academic performance of students.

Privacy issues always slays on top as a negative impact of internet use and within colleagues and peer interaction cyberbullying, online harassment is maximum (O'Keeffe & Clarke-Pearson, 2011).

In this state of pandemic, privacy leaking problem is increasing as there is

increment in internet use. Tracing infected person using smartphone applications had raised question in front of the civilian privacy (Pant & Lal, 2020). One might not be comfortable to share their home environment with everyone. Online classes too are facing such problems due to video graphic interaction between teacher and students in their private space (Garcia, 2020). So, governments are aware and few of them has taken strong action against Zoom meeting which compelled them to uplift their security function (Yu, 2020).

When one uses internet exceeding their self-control and misleading them, it turns out to be Problematic Internet Use (PIU). Examination done on students of Southeast Asia showed their problematic internet use behavior ranging 0- 47.4% which various effects mentioned as eye strain, daytime sleepiness and insomnia (Balhara, Mahapatra, Sharma, & Bhargava, 2018). Study done by (Wartberg, Kriston, & Thomasius, 2020) predicted emotional distress as base cause of problematic internet use. Though same type of study done in large sample of Australian adolescents concluded that PIU in fact leads to emotional problems keeping distress side by side (Donald, Ciarrochi, & Sahdra, 2020).

There might be various reasons but the actual cause of problematic internet use is still unclear (Brand et al., 2019). Study done in 392 medical students in turkey suggested mental distress as major factor of PIU (Yücens & Üzer, 2018). Also study by (Zhang, 2021) in a sample of 458 undergraduate students in China observed impulsive character mediating connection between neuroticism and PIU. Survey on Italy comprising 244 university students concluded high impulsivity and depression as the key to PIU (Marzilli, Cerniglia, Ballarotto, & Cimino, 2020). Analyzing data of 1600 Indian college students also gave the same relationship between depression anxiety, impulsivity and PLU (Bisen & Deshpande, 2020). However, community sample of 15,023 individuals when analyzed it was found that personality characters are the one to explain problematic internet use rather than impulsivity but anxiety and depression level was not evaluated in the community (Zadra et al., 2016). These all factors; depression, anxiety, uncontrollable impulses and unique personal character directly or indirectly is helping individual to reach excessive internet use limit and create problematic internet use issues.

The type of knowledge people has and the age of individual, are two variables that interferes the reason for excessive use of social networks. Maximum people are using these communication sites in the free period whose excessive use can lead to addiction (Gómez-Galán, Vergara, Ordóñez-Olmedo, & Veytia-Bucheli, 2020). Siste et al. (2020) revealed that being online for more than 11 hours per day creates a risk for Internet Addiction (IA). Young age group and students here using online sites for killing their leisure time without self-control has become matter of concern. This highlights the need of protocol to be established for their limited use (Aparicio-Martinez et al., 2019). Here seems the need of family guidance and someone to show right path to the students who are about to walk on the path of addiction and excessive use.

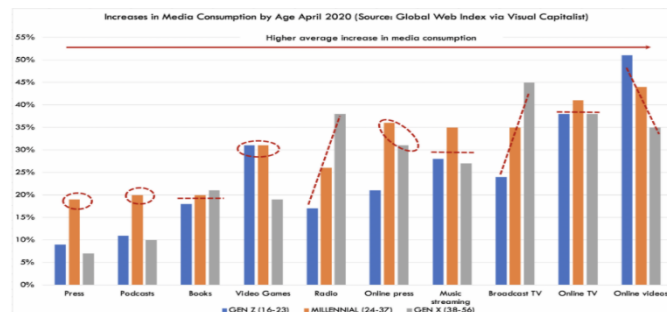
Enhancement of skills, creativity, opportunities to learn new things, socialization and motivation are major bright sides of these new technologies while negative impacts like emotional withdrawal, limitation in listening skills, and diminished physical communication can be seen (Arab & Díaz, 2015). This situation created by SARS-CoV-2 is very stressful and it may have highlighted the negative effects of excessive use of internet. Studies have found that anything that is source of pleasure can ultimately change into addiction and technological addiction (Griffiths, 1997) is what people are prone to now. Depression, low self-esteem, introvert ness and shyness has been declared as main cause of internet addiction mainly virtual networks of millennial by various studies (F. Cao & Su, 2007). Video game addiction on the other hand is becoming great issues regarding young student as it is very much related to obsession with social networks; on with this addiction is not related to other factors as reason for excessive use of internet. This addiction is clearly taken as the result or after come of internet addiction (Zajac, Ginley, Chang, & Petry, 2017). Mental health and social interaction level of students will definitely degrade if these addictions and problems stay longer than we predict and could imagine.

2.4 Comparative analysis on use of Information and Communication Technology (ICT)

Various research and studies have been carried out to understand how this pandemic has changed internet using pattern in students as well as in all people from the globe. Study done by Branscombe (2020) showed that use of internet have risen to 100% from 40% if compared with pre-covid periods. Indonesian survey found that there was 52% increase in duration of internet usage during COVID-19 pandemic as the free time created by this havoc was utilized by all respondent using internet (Siste et al., 2020).

Also, there is found ten times increment in use of video conferencing applications like zoom. These virtual video conferencing services (Zoom, Google Meet) have become the ultimate solution to give educational continuity as school, colleges and universities all around the world are unable to conduct physical classes. This catastrophe has compelled all to connect with internet. Youths from weak economic background have poor access to internet and unavailability of gadgets. But the one without access to social connection are excluded and left out (Scheerder, van Deursen, & van Dijk, 2017). Previously poor students were not so active in internet consumption but this pandemic has compelled to do so. This might have created certain condition of pressure, fear as well dilemma being in between economic crisis and academic failure. Gečaitė-Stončienė et al. (2021) found 45.1% of students had Problematic Internet Use issues, 38.1% had symptoms of anxiety and 43.6% showed moderate symptoms of depression in his survey during the COVID-19 period and reached to the conclusion that these factors are interrelated to each other. Loneliness increased by lockdown has dual link with internet use. Students using internet for technological learning and activeness is helping them to minimize loneliness. On contrast when used as a medium to abandon physical, social connection from real world, it is working as an avenue to make them feel more outcasted and lonely (Nowland, Necka, & Cacioppo, 2018).

Below is the analysis drawn from Global Web Index study done among 4000 internet users in the US and UK in between pandemic as retrieved from (Taylor, 2020) showing increased in media consumption due to the coronavirus outbreak among internet users by different generations:



Source: (Taylor, 2020)

Above diagram makes us clear that this pandemic has increased internet consumption of students (millennials) where most of them are found to spend time streaming videos and online TV.

Thesis on the media use pattern done by Lad, Bhuyan, Chopra, Padhi, and Gupta (2020) in India has 114 response in which majority were college students. It showed that before lockdown students preferred Instagram 95.6% most, snapchat was preferred after that i.e., 71.1% and then Facebook 53.5%. Surprisingly, those students had started using Zoom 74.6%, House party applications 51.8%, Google Duo 27.2% and Cisco WebEx 23.7% after the country-imposed lockdown. This clearly shows how students have shifted to other applications as per their need and some sort of compulsion. In this alarming state of COVID-19, Spain noticed 50 points above the whole world web traffic using social networks. Some were found using internet as a hobby while other used it for education, socialization and information (Orte & Nevot-Caldentey, 2020).

Study done in 619 university students in Lithuania, 76% of the student confessed fair increase in internet use time during COVID-19 pandemic compared to pre-lockdown period (Gečaitė-Stončienė et al., 2021). More than 20 million coexisting users were reported by a leading game distributor which is the highest number in whole history of 16 years (King et al., 2020). Also online survey done among 3245 young citizens in Germany disclosed increase rate in use of various internet platforms during this havoc i.e., highest rise in use of videos streaming (16%) and information sites (14%), following that social medias (9%), gaming (9%) and pornographic sites (4%) (Lemenager et al., 2021). Pornography and erotic sites might have more visits than mentioned in survey as people hesitates and provide false data due to feeling of shame and societal judgement (Sniewski & Farvid, 2020). Video game addiction too can be seen at peak as this pandemic raised it menace all over.

Chinese sample taken by Gao et al. (2020) found that 82% of population from his samples were continuously revisiting social media during pandemic period. Also, Ni et al. (2020) analyzed that 1/3rd of the samples spent 2 hours minimum a day in social media and reading news related to COVID-19.

3. CONCLUSION

Though use of internet by students was not considered normal activity for past few decades, this pandemic had something different to offer. COVID-19 confinement had spread its threat and created stressful environment with adding more loneliness in people. Online world is chosen by people as a gate way to deflect self from all problems created by pandemic. Virtual education system is preventing students from academic collapse. This leisure time has also given them opportunity to develop technological and digital knowledge and show some innovation. Not just the positive aspects but some dark sides of web exhibit certain serious problems. Many poor country's students are facing internet deprivation and academic loss. False and frightening messages, flown through internet have caused mental stress and certain disorder in people is an example of misuse of this platform. Continuous use has created a situation out of self-control leading to internet addiction and anxiety. However, most of the research carried out is done on specific area or state of country which might not have higher external validity and applicability for every corners of globe. The scenario of different part might be different even in same country. In most of the survey female respondent are higher than males. So, those researches were not enough and authentic to explore the gender wise internet use pattern. There is a huge lag between the problem created by maximum internet use and possible measure to be taken in order to cope, as well as minimize its consequences, problems and disorders.

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