

## Factors and Effects of Internet Usage among Secondary School Students in Malaysia

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### Abstract

The use of the internet in this digital age is seen to be a basic necessity in the life of a universal human being. This is due to its need in performing various activities and meeting the psychological and physiological needs of its users. The convenience of the internet network service provided allows anyone to use it for various purposes. Teenagers are seen to be the most users of the internet nowadays. This is because almost every teenager is already able to have a smartphone to access the internet anywhere. The internet networking services provided allow teenagers to interact, entertain, and get information. However, the uncontrolled use of the internet can have a detrimental effect on adolescents. Therefore, this study aims to look at the factors of internet use and the impact of internet use on secondary school students in Malaysia. The method of this study is a survey study which involved 1376 form four secondary school students in seven states in Malaysia. Data were collected using a set of questionnaires. Descriptive data analysis was performed using SPSS software. The results show that the main factor of internet use by students is to find entertainment, add knowledge and eliminate loneliness. Meanwhile, the most felt effects by students are that they feel bored of not having internet, sleep late, fail to control time, feel lonely when not online and are late in completing schoolwork. Thus, this research paper also discusses the steps that need to be done by all parties to control the use of the internet among secondary school students.

**Keywords:** Internet Usage, Secondary School, Effects of Internet Usage, Cyber Risk, Factors Internet Usage

### Introduction

The Internet is a communication that connects, facilitates, speeds up and accesses information widely from around the world (Ain et al., 2021). The advent of the internet began in 1966 by ARPA (Advanced Research Project Agency) which is a global -scale data communication system, as well as an infrastructure consisting of hardware and software that connects computers that are in its network. This allows internet users to exchange

information or data through the network. In general, the internet can be summarized as a network of a global nature that connects more than one user from various places around the world using technological devices as well as software developed for the exchange of information (Haslina et al., 2021). This network facility allows nearly 400 million users in the world to use the internet. This is because technological devices and the internet are also no longer something that is difficult to obtain and expensive to own. It was seen as a basic necessity in human life today until the outbreak of the Industrial Revolution 4.0 (IR 4.0) which introduced the Internet Of Thing (IoT). With the existence of IoT then it shows that the world today depends on the internet and technological devices to assist in carrying out any human activity today (Megan et al., 2021).

In Malaysia, the need for internet usage has increased drastically since the implementation of the Movement Control Order (MCO) in 2020 to curb the spread of the Covid 19 epidemic (Ain et al., 2021). This is because, all government and private sectors implement the Work from Home (WFH) approach. All activities and work processes are implemented from home only by using applications and systems that support the implementation of work activities from home. Not only that, during the MCO period as well, the internet is needed to meet the leisure time of Malaysians which they use that time to watch entertainment on existing online entertainment platforms (Ain et al., 2021). Statistics released by the Communication and Multimedia Commission (MCMC) for the number of internet users for 2020 increased by 1.3% compared to the previous year. This shows that every year the internet needs in Malaysia will continue to increase based on the approach and also the internet needs provided by all sectors in Malaysia.

In the context of internet users in this digital age, adolescents are not left behind in using the internet and digital devices such as smartphones, computers, laptops, and tablets (Adams & Paul, 2017). The rate of internet and social media usage among adolescents in Malaysia has also been increasing in recent years due to the increasing use of smartphones among adolescents (Haslina et al., 2021; Chassiakos et al., 2016). The results of a study by CyberSecurity Malaysia and the Ministry of Education Malaysia in 2016 have found that almost 92.5 percent of hardcore internet users are teenagers aged 13 to 17 years (Harian, 2017). This is due to the price of technology devices and internet packages offered by communication companies affordable for teenagers in secondary school. Even with the availability of Wireless Internet services everywhere such as cafes, restaurants, airports, hotels, shopping malls and public places it makes it easier for anyone to access the internet for free (Anderson & Jiang, 2018).

### **Internet Use Among Adolescents**

The influence of the environment has urged a person to use Information and Communication Technology (ICT) so that it is relevant over time. For example the use of smartphones is necessary today for every individual so that they can connect easily with anyone and wherever they are. This situation can be seen everywhere so that some use ICT without time limits, conditions and age limits. According to a study conducted by Adams & Paul (2017) found that adolescents are the highest internet and smartphone users. According to Haslina et al (2021); Shanti (2013), adolescents use the internet is intended to make friends, entertain, play and get information which includes the use of social media, chat applications, search engines, entertainment platforms, and online games. This is because, at the adolescent age

of 13 to 17 years, they begin to respond with emotional demands and autonomy to find self-identity and self-appearance (Jose, 2010; Tiara et al., 2013). Therefore, they are seen to express emotional demands and autonomy through the use of the internet (Haslina et al., 2021).

Most teenagers nowadays are seen expressing their feelings, entertaining and making friends through social media such as Youtube, Facebook, Instagram, Snapchat and Tiktok. This is because through such social media, they are able to form their identity as well as express themselves as well as their emotions easily and build relationships with their peers (Normah et al., 2013). Through social media, teenagers can interact with their friends through sharing photos, videos and follow all the latest information of their friends. Because of this, today's adolescents will easily feel bored when they are unable to be online to interact with their peers on social media (Hawi & Samaha, 2016; Lue et al., 2011). Not only that, for physically marginalized adolescents, they will prefer social media to interact, express feelings, relieve stress and eliminate their loneliness on social media platforms (Haslina et al., 2021). This indirectly helps them to find friends in cyberspace without meeting physically and builds their confidence and trust in the friends they know on social media.

In addition, online gaming platforms and applications are also among the focus of adolescents today to entertain, relieve stress, find new friends, get rid of loneliness or boredom. The visual, audio and animation effects found in digital games attract adolescents to play among the causes adolescents can't stop playing until they feel the game is a fantasy world that makes them feel better and pleases their feelings (Antonius et al., 2010). In fact they are willing to spend money and time simply to satisfy themselves while playing digital games (Jiang, 2014). According to a study conducted by Jiang (2014), adolescents usually use digital games is to satisfy their feelings through the facilities available in the game. The advantages inherent in these digital games allow adolescents to construct their own world while playing (Jiang, 2014; Antonius et al., 2010).

Although the internet offers a variety of great social media facilities and digital games but it can also have a detrimental effect on these adolescent users which involves psychological changes and harmful physiological reactions if their use is not well controlled (Eduardo et al., 2012). According to Johari & Shahrina (2012), the facilities available on the internet have influenced its users to use the services provided thus leading to internet addiction. This addiction stems from high psychological satisfaction demands on something done leading to addictive behavior (Settley, 2020). According to Cheung & Lee (2010), users who are addicted to social media will feel uncomfortable, anxious, restless and lonely when not online. They feel like they will lose online friends if they are not on social media. Not only that, when they are online they no longer care about the social environment in their real life so they find it difficult to sleep because of thinking about their social media development and it definitely affects the health level of the individual like weight gain (Lu et al., 2011; Hong, Chiu & Huang, 2012; Johari & Shahrina, 2012).

In addition, UNICEF Malaysia (2014) also found that the effects of social media addiction among adolescents can lead to a decline in lessons where they are unable to complete schoolwork, often sleep in class, and get unsatisfactory results. This is caused when they often sleep late and fail to control their time using the internet. Not only that,

unknowingly as a result of excessive internet use adolescents will also sacrifice reality relationships in life around them including success in academics, social life development, physical activity and responsibility to family (Jiang, 2014). Therefore, adolescents need to look at this issue seriously so that they can overcome it and control the use of the internet. Thus, this study aims to identify the factors of internet use and the effect of use on form four secondary school in Malaysia.

### Research Methodology

This study was conducted using a survey research method for the purpose of collecting data related to the factors of internet use and the impact of internet use on students. Random sampling was used to obtain the sample of this study in which the selected sample is sufficient for the required characteristics of using the internet. Therefore, a total of 1376 students from seven states in Malaysia i.e. Sarawak, Kedah, Selangor, Kuala Lumpur, Putrajaya, Melaka and Terengganu. Table 1 shows the number of samples that were selected by state.

Table 1

*Distribution of Respondents by state.*

State	Number Of Respondents (n)
Kedah	236
Selangor	202
Kuala Lumpur	243
Putrajaya	126
Melaka	177
Sarawak	216
Terengganu	175
<b>Total</b>	<b>1376</b>

Questionnaires were used to collect data related to the factors and effects of internet use on students. This questionnaire form was adapted and modified from previous studies (UNICEF, 2014; Hawi & Samaha, 2016; Balraj et al., 2013). There are 7 items related to internet usage factors and 5 items related to internet usage effects on students in this questionnaire. All items were measured using nominal data i.e. students were asked to choose either 'Yes' or 'No'. The questionnaire was first tested by 93 students from states who were not involved with the actual research. The data obtained were then analyzed using Statistical Package for the Social Science (SPSS) version 20. Data were reported by descriptive analysis with frequency and percentage interpretation.

### Findings

Among the purposes of this is to investigate the factors that cause students to use the internet and the impact of internet use on students. Therefore, the results of the findings that have been obtained are reported using frequency and percentage interpretations.

### Internet Usage Factors

Table 2 shows the reports related to internet usage factors among form four students from the seven states involved. Findings are reported using frequency and percentage interpretations.

Table 2

## Internet Usage Factors

Internet Usage Factors	Frequency (n)	Percentage (%)
Looking for entertainment	1109	80.6
Increase knowledge	1092	79.4
Eliminates loneliness	1036	75.3
Completing school work	995	72.3
Relieves stress	889	64.6
Express feelings	361	26.2
Others	231	16.8

Based on the report displayed in Table 2, a total of 1109 respondents (80.6%) use the internet because they want to find entertainment, while a total of 1092 respondents (79.4%) use the internet because to increase their knowledge, and a total of 1036 respondents (75.3%) using the internet is because they feel lonely. The use of the internet among respondents is also due to completing school work where a total of 995 respondents (72.3%) use the internet due to that factor. Apart from that, it was found that a total of 889 respondents (64.6%) used the internet due to stress relief. The findings also found that, a total of 361 respondents (26.2%) used the internet because to express their feelings. Meanwhile, other factors were 231 respondents (16.8%). Thus, the findings shown in Table 2 can be concluded that among the main factors respondents often use the internet is to find entertainment, add knowledge and eliminate loneliness.

### The Impact of Internet Use on Students

Table 3 shows the reports related to the effects of internet use on respondents reported using frequency and percentage interpretations.

Table 3

*Effects Of Internet Use*

Effects Of Internet Use	Frequency (n)	Percentage (%)
Feeling bored when not having internet	1137	82.6
Sleep late	722	52.5
Failed to control time	700	50.9
Feeling lonely when unable to be online	628	45.6
Delay in completing school work	584	42.4

Table 3 shows the effect of internet use on the lives of respondents where the item "Feeling bored when not having internet" is the highest effect felt by respondents that is a total of 1137 respondents (82.6%). Meanwhile, for the item "Sleep Late", it was found that a total of 722 respondents (52.5%) stated "Yes" which they use the internet until late to sleep. In addition, a total of 700 respondents (50.9%) also stated that when they use the internet they "Fail to control time". A total of 628 respondents (45.6%) also stated "Yes" to the item "Feeling lonely when unable to be online" which is one of the effects they get when they often use the internet. Finally, for the item of the impact of internet use "Delay in completing school

work" found that a total of 584 respondents (42.4%) have stated "Yes" to represent the impact they have faced after using the internet. As a result of these findings, it can be concluded that, unlimited internet use can have a negative impact on respondents if it is not well controlled.

### **Discussion**

The findings obtained show us that the main factor of students using the internet is because they just want to find entertainment, add knowledge and get rid of loneliness. This may be due to the various applications and facilities offered online so that students are not aware that it has a negative impact on themselves. This can be seen from the results of this study which shows side effects due to the use of the internet to students that is feeling bored when not having internet, sleeping late, failing to control time, feeling lonely when not online and late completing school work. If this is not addressed appropriately, students may also be exposed to more serious cyber risks such as cyberbullying, pornography, social media addiction, online gaming addiction, internet addiction, and information sharing that is difficult to control. Therefore, to prevent this more serious matter from happening, various parties need to play a role.

Among them are, as a student they need to make a schedule of monitoring daily activities in order to control the time of internet use (King et al., 2012). In addition, students should also do outdoor activities together with family or close acquaintances as a measure to avoid finding entertainment online. Even for a student, they can also be actively involved in activities done at school to get rid of boredom and loneliness. Students also need to carefully evaluate any information they acquire online so that the knowledge they acquire online is not misinterpreted and practiced by them. Meanwhile, parents also play an important role in controlling their children's internet use at home. Parents can limit internet use at home and impose penalties if they ignore established rules. In addition, parents also need to provide space and time to communicate as well as do activities together with their child so that their child does not feel lonely and bored so use the internet to get rid of those feelings (UNICEF, 2014). Even parents also need to constantly know and monitor any information obtained by their children so that their children acquire useful knowledge.

Apart from that, the school and the government can also provide support groups and therapy for students who are seen to have symptoms of internet addiction, social media addiction or online game addiction so that students do not get involved with worse effects on themselves (Jamiah et al., 2016). In fact, the school and the government also need to provide exposure to students related to the misuse of information and also the dissemination of false information so that students are not involved in this risk. Therefore, it is proposed for future studies to further expand this study for children so that we can see the extent of internet use among children and the impact of internet use on children.

### **Conclusion**

The conclusion from this study are, the main factors of internet use by form four secondary school students are to find entertainment, get information, get rid of loneliness, complete school work and relieve stress. These factors are seen to be able to contribute to the worse effects related to the internet that is cyber risk apart from the effects that have been reported that is bored when not having internet, sleeping late, failing to control time, feeling lonely

when not online and late completing school work. Therefore, various parties starting from parents, students, schools and the government need to play a role in controlling this situation so that the use of the internet by school students is more controlled. This is so that, to be able to produce a quality student identity that includes morals and attitudes so that it can form a prosperous and happy 4.0 industrial revolution society.

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