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Time Spent on the Internet as a Factor in Cyberbullying in Social Media

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Abstract

Malaysia ranked 9th among the countries with the most active social media users worldwide, which comprise 80% of its total population. The extensive use of social media platforms eventually leads to ethical and moral violations in the form of cyberbullying. This activity is becoming more prevalent among netizens by making fun of an individual as a joke to attract attention and fun on social media. The government established the Communications and Multimedia Act of 1998 to monitor misdemeanors in the digital world, mainly social media. This study aims to analyze the duration of time spent on the internet as a factor in cyberbullying. The study quantitatively used a survey design. A set of questionnaires was distributed to 436 respondents in Melaka and later analyzed through SPSS software. The findings of the study reveal a significant difference in the mean score of the effect of cyberbullying based on the time spent surfing the internet ($f = 8.857$); ($p < 0.05$) for each category.

Keywords: Internet Usage, Cyberbullying, Social Media, Communication

Introduction

Industrial Revolution 4.0 has contributed to the rapid development of information and communication technology. The result of various online applications and social media platforms has had a positive impact on human life. However, these developments also contribute indirectly to the adverse effects on virtual citizens, especially the misuse of

facilities offered through activities that violate consumer ethics, law, and Islamic law. These include cyberbullying, dissemination of false information, defamation, misrepresentation, and online transaction fraud. During the COVID-19 pandemic season, these abuse cases increase due to the community's reliance on internet networks to communicate and transact following the government's enforcement of the Movement Control Order (MCO).

The MCO, introduced on March 18, 2020, has indirectly introduced Malaysians to a new norm, including using social media and online applications for various purposes and needs. The Malaysian Communications and Multimedia Commission (MCMC) reported a sharp increase in demand for broadband since the implementation of PKP as business activities, learning, conferences, meetings, and so on were conducted from home. Compliance with PKP implemented saw an increase of 23.5% in internet traffic flow nationwide in the first week of MCO and 8.6% in the second week (MCMC, 2020). The vast explosion of information and communication technology (ICT) advances dramatically facilitated the community's life as many businesses and services can be accessed and managed online. However, the developments of online-based lifestyles also come with their disadvantages. Some users have misused the cyber medium as a platform to commit crimes and make an easy profit, leading to more severe cybercrime problems.

The increasing concern about cybercrime has led the government to take the initiative to raise awareness and encourage the use of the internet and computers positively and ethically (Harian, 2017). According to a study conducted by MyCert, nine forms of cybercrime are frequently reported by victims, including content-related crimes, cyber harassment, denial of service, fraud, intrusion attempts, malicious codes, and vulnerabilities reports. The increasing use of cyber media after COVID-19, or more precisely during the MCO, has exposed internet users to these crimes, both as perpetrators and victims. According to the Deputy Minister of Communications and Multimedia, Datuk Zahidi Zainul Abidin, an abrupt increase of 91.37% of complaints regarding cybercrime were reported during the MCO from March 18 to June 30, 2020, compared to the year before. He added that the most received complaints were on cyberbullying, fraud, data theft, and hacking in urban areas with more comprehensive internet access speeds (RTM, 2020). Consequently, the authorities have taken swift and collective action, especially by MCMC, Cyber Security, and PDRM, to prevent this criminal activity from expanding and to provide a safe environment for social media users and online applications from these transgressions.

Social Media in Malaysia

Malaysian Communications and Multimedia Commission (MCMC) monitors all online activities in Malaysia, including on social media. MCMC has the role of implementing and enforcing the preparation laws on multimedia and communications apart from regulating all matters related to communication and multimedia activities. They also possess the authority to take action toward any complaints related to the field. According to a report, 11,235 new media-related complaints were recorded from January to June 2020, involving hacking activities, online gambling, prostitution promotion, copyright infringement, forgery, pornography, sedition, and so on. Of these, the authorities successfully handled 11,216 or approximately 99.83% of them, gave 80.56% advice, guidance, and education to the community, and referred 18% of the complaints to social media platform providers for further action based on terms and conditions, and 1.27% determined to have violated the provisions under Section 233 of the Communications and Multimedia Act (AKM) 1998 (MCMC, 2020). In general, online fraud, cyberbullying, and fake and seditious news dominate cybercrime

throughout the MCO, which has resulted in a sharp increase in the number of complaints associated with these three forms of crime.

Globalization has indeed generated a rapid escalation in the sophistication of today's technology, primarily in the cyber-related medium. Striking increment in mobile phones and computer users indicates that borderless communication is; and will continuously become an indispensable trend and necessity worldwide. Although the existence of a limitless world undeniably induces positive impacts, it nonetheless draws adverse effects, such as cyberbullying. Cyberbullying uses technology-based communications, including cell phones, emails, instant messaging, and social networking, to harass or intimidate other individuals through online interactions or expressions (Che Hasniza et. al, 2018). Alarmingly, these offenses keep increasing and evolving through various patterns, inevitably attracting attention from the authorities. While the abundance of free time and distress experienced at home during the MCO has indirectly led to the escalation of cyberbullying throughout the online community (Basir et. al., 2020).

Chief Executive Officer of Cyber Security Malaysia (CSM), Datuk Dr. Amirudin Abdul Wahab, urged the community to be more thoughtful and anticipate the threat of cyberbullying. Such sensibility is imperative, considering cyberbullying could imply more affliction to someone than regular physical bullying. Anyone can do cyberbullying due to the unlimited boundaries of the internet. To make matters even worse, it needs a strenuous effort to identify the offenders due to the anonymity provided by the internet to its users. Besides, the content of the offense will be permanently accessible on the internet as long as the bully does not delete it. Thus the victims will be continuously exposed emotionally and, in some cases, put enormous pressure on them to the extent of becoming self-destructive or, even worse, suicidal (Che Hasniza et. al, 2018).

The Malaysian Youth Development Research Institute (IPPBM) conducted a study in 2017 upon 1382 youths ranging from 15 to 30 years old, consisting of 6 different zones, namely Northern Zone, East Zone, Central Zone, Southern Zone, Sabah, and Sarawak. This study aims to analyze the phenomenon of cyberbullying among youths in Malaysia. The results revealed that a more significant part of the youths had been the victim of cyberbullying, with a percentage as substantial as 62.3%, with 1.21% of them encountering emotional stress to the point of attempting suicide (IPPBM, 2017). While a study by the United Nations Children's Fund (UNICEF) and the MyHealth Malaysia portal on more than 5,000 respondents indicated that 3 out of 10 young people in Malaysia are victims of cyberbullying, which certainly affect their education and social life (Ruiz, 2019).

Cyberbullying on Social Media

Parallel to the advancement of social networks, cyberbullying is a growing issue (Raphael, 2018), thanks to the widening use of social media worldwide as a critical factor (Alim, 2017). Such activities become more prevalent nowadays through mass transmission (viral) of mocking and degrading videos and pictures, better known as 'trolls' on social media such as Facebook, Whatsapp, Instagram, and Twitter (Ansong et al., 2013). Furthermore, social media users will usually utilize the comments section to share pictures or create humiliating or spiteful posts to embarrass the victims, as it is the most exposed and easily accessible space (Griffiths, 2014). Although, on the face of it, it may look like they're doing it primarily for fun and jokes. Most of us often overlook the severe effects experienced by the victim, for example, low self-esteem, the risk of mental problems, depression, or in the worst-case scenario, it may lead to suicide. The irony is that in the most advanced and sophisticated

technology-based world in human history, humanity seems to take a giant step backward with an ill-mannered attitude, profanity, and degrading other people. Meanwhile, primarily cowardly hiding under anonymous identities is often associated with fake accounts.

Therefore, seeing the dangerous effect of cyberbullying, the MCMC, in collaboration with Malaysia Multimedia University (MMU), has researched establishing a moral law regarding cyberbullying. The research is crucial due to the worrying trend of the increment in cyberbullying cases in Malaysia leading to suicide. According to the Minister of Communications and Multimedia, Datuk Saifuddin Abdullah, although Malaysia has legal provisions related to cyberspace through the Communications and Multimedia Act 1998, a specific Act on cyberbullying needs to be drafted and implemented just like in Singapore, the Philippines, and some developed countries. Comprehensively, consultation from general stakeholders, including the Attorney General's Chambers, Communications and Multimedia Commission, Cyber Security Malaysia, and the Bar Council, also considered this research. Purposely, to examine various aspects of cyberbullying, enclosing content, types of offenses, and penalties in the Act.

The Industrial Revolution 4.0 has induced remarkable changes in the digital world. The development of the digital world driven by information and communication technology is becoming more sophisticated and complex, consequently impacting the pattern of social interaction in society. Today, the interaction between people has crossed national, religious, and ethnic boundaries, something deemed unthinkable in the past. They can communicate quickly, cheaply, effortlessly, and limitlessly. Based on the global internet usage statistics report, 26.4 million out of 32.68 million Malaysians were avid internet users in the second quarter of 2019, primarily focused on new social media such as Facebook, Twitter, Instagram, and Whatsapp. However, lately, netizens have encountered various unhealthy traits, mainly social media abuse. These malicious activities include espionage and cyber-bullying, spreading lies and false news, making vulgar comments and hateful speech, and on many occasions inciting racial and religious tensions, notably insulting Islam and the Malays as the majority group in Malaysia.

Cyberbullying implies an act of digital technology utilization involving offensive and abusive words to offend, embarrass and threaten victims, thus resulting in emotional stress and possibly, in some cases, escalating to the point of being suicidal. It has become a matter of concern nowadays as topics related to cyberbullying are drastically increasing. The fact that the internet is an open space to address and provide insights on a variety of issues from trivial matters, entertainment, and sports, to severe problems such as politics, economics, and religion; and the stage is practically everyone's; links up extensively to the rise of cyberbullying. However, despite all the breakthroughs accomplished in this modern tech-savvy world, some users appear to disregard fundamental moral principles and communication etiquette. Along with the information explosion on the internet came the dissemination of fake news, slander and defamation, profanity, obscenity, shaming, and degrading comments on social media, without considering the consequence on others, let alone the victims. Additionally, the perpetrators of these malicious behaviors seem to be enjoying their activities, thinking more and more netizens tend to spend more time online daily, making cyber addiction the latest behavioral concern among netizens in Malaysia. This unhealthy lifestyle certainly will affect the well-being of life apart from the level of mental health and mold anti-social attitudes in this ever-growing society.

Research Methodology

This study quantitatively uses a survey design. A set of questionnaires was distributed to selected respondents to gather the data needed in the study. The constructed questionnaire instrument consists of four components, particularly part A on the demographics of the respondents, part B on the duration of social media use, part C on the practice of cyberbullying in social media, and part D on the impact of cyberbullying mentally and emotionally. This questionnaire uses Likert Scale which is divided into five-point scale; 1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree. Based on Krejci and Morgan's table (1970), the specimen size selected was 436 people among social media users in Melaka. The study sample selection uses the purposive sampling technique, which consists of specific samples and coincides with the objectives. Respondents' profile information was obtained from the feedback received in the questionnaire via Google form. The descriptions focus on the respondent's demographic factors, like gender, age, and duration of time spent on the internet.

A pilot study ensures the validity and reliability of the items in the questionnaire before undertaking the actual research. The respondents for this pilot study were 40 randomly selected social media users in Melaka. The findings of the pilot study are as follows:

Table 1
Reliability Statistics

Cronbach's Alpha	N of Items
.753	24

As referenced in Table 1 above, Cronbach's Alpha for all items was .753, with 24 items measured and considered moderate. According to Sproles & Kendall (1986), Cronbach's Alpha is a test of internal consistency, i.e. the extent to which it is related to a set of items as a group. It is considered a measure of the reliability of a scale factor; in this case, Cronbach's Alpha coefficient at 0.4 or higher is considered acceptable. Therefore, we can conclude that Cronbach's Alpha for all variables in this study is considered acceptable.

Once the data through the questionnaire method has been collected and keyed in the form provided in the Statistical Package for the Social Sciences (SPSS) software, it will be analyzed and presented as descriptive statistics (Zulkarnain & Hishamuddin, 2001). According to Alias (1997), descriptive statistics describe the state of the data found in the study sample. It collects data, formulating and presenting intelligible conclusions and patterns to the target group. For example, through SPSS, a researcher can estimate a variable average (mean), standard deviation, variance, and others (Mahdzan, 1985). Additionally, descriptive statistics aim to provide a systematic description of the facts and characteristics of a population or field of interest factually and accurately (Sidek, 2007). Therefore, the researcher used a one-way ANOVA analysis to test the envisioned hypotheses. The analysis used Statistical Package for the Social Sciences (SPSS) software for Windows version 22.0.

Findings and Discussion

Based on the study, the analysis of the findings obtained as follows:

a) Demographic Analysis of Respondents

This study develops the profile of the respondents to distinguish their characteristics respectively and to identify and provide information on their backgrounds. Profile of respondents based on the survey obtained as follows:

Table 2

Demographics of the Respondents

Type	Frequency	Percentage (%)
Sex		
Male	140	32.1
Female	296	67.9
Total	436	100.00
Age		
15 to 25 years old	380	87.2
25 to 35 years old	20	4.6
35 to 45 years old	28	6.4
45 years old and above	8	1.8
Total	436	100.00
Duration of Time on Spent on The Internet		
Less than an hour	2	0.5
1 to 3 hours	50	11.5
4 to 6 hours	163	37.4
More than 6 hours	221	50.7
Total	436	100.00

Table 2 shows the number and percentage of respondents by gender. The demographic analysis shows that the respondents comprised 140 men (32.1%) and 296 women (67.9%). It shows that the composition of female respondents overwhelmed the males by more than double. While in terms of age, this study involves several age groups ranging into four categories specifically; 15 to 25 years, 25 to 35 years, 35 to 45 years, and 45 years and above. The majority of respondents belong to the first category (15 to 25 years), represented by 380 people (87.2%), followed by 28 people aged 35 to 45 years (6.4%), 20 people (4.6%) ranging from 25 to 35 years and only a tiny portion of 8 people (1.8%) represents the last group (45 years and above). Finally, demographic analysis on various degrees of internet browsing time has four categories, i.e less than 1 hour, 1 to 3 hours, 4 to 6 hours, and 6 hours and above. The majority of respondents are in the category of 6 hours and above, comprising 221 people (50.7%), followed by respondents who surfed 4 to 6 hours by 163 people (37.4%), 1 to 3 hours by 50 people (11.5%) and only 0.5% or 2 of the respondents declared they surfed the internet for less than 2 hours.

Table 3

Anova Test on The Duration of Time Spent on The Internet And The Practice of Cyberbullying Variations in The Duration of Time Spent on The Internet with Cyber Bullying Practices

Variables	n	M	SD	F	p
Duration of time on the internet					
Less than an hour	2	2.25	.265	8.857	.000
1 to 3 hours	50	2.22	.672		
4 to 6 hours	163	2.52	.622		
More than 6 hours	221	2.73	.714		
Total	436	2.59	.693		

Table 3 reveals that there's a significant difference in the mean score of the effect of cyberbullying practice based on the period of surfing the internet ($f = 8.857$); ($p < 0.05$). Therefore a post-hoc test using Scheffe has been done to demonstrate each in more detail for each category.

Table 4

Homogeneity of Variance

	Levene Statistic	Sig.
Content Mastery	1.617	.185

As seen in the homogeneity variance table, the significant value for this test is 0.233, which is greater than 0.05. Thus, it may say that the variance for the population of each group is almost identical.

Table 5

Post Hoc Content Mastery Test Results Based on Age

(I) Duration spent on the internet	(J) Duration spent on the internet	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than an hour	1-3 hours	.03000	.48694	1.000	-1.3366	1.3966
	4-6 hours	-.27224	.48041	.956	-1.6205	1.0760
	More than 6 hours	-.47936	.47964	.802	-1.8255	.8668
1-3 hours	Less than an hour	-.03000	.48694	1.000	-1.3966	1.3366
	4-6 hours	-.30224	.10917	.055	-.6086	.0041
	More than 6 hours	-.50936*	.10575	.000	-.8061	-.2126
4-6 hours	Less than an hour	.27224	.48041	.956	-1.0760	1.6205
	1-3 hours	.30224	.10917	.055	-.0041	.6086
	More than 6 hours	-.20712*	.06972	.033	-.4028	-.0114
More than 6 hours	Less than an hour	.47936	.47964	.802	-.8668	1.8255
	1-3 hours	.50936*	.10575	.000	.2126	.8061
	4-6 hours	.20712*	.06972	.033	.0114	.4028

*. The mean difference is significant at the 0.05 level.

Table 5 indicates a significant value, particularly between the age category 1 to 3 hours with 6 hours and above, where the significant value obtained is ($p = .006$) i.e. ($p < .05$). Thus, this study proves that the duration of internet use has a significant effect on the behavior of cyberbullying on social media. Therefore, every internet user needs to practice self-control and good moral values when using the internet, especially on social media platforms. This is to prevent them from being involved in any negative behavior and protect them from becoming victims of cyberbullying on social media.

Conclusion

Social media seems essential for every member of society, especially in the Industrial Revolution 4.0 era. However, unscrupulous exploitation of the enhancement of the digital world inevitably leads to social media abuse for unethical activities, disrupts society's order,

and even violates the law. Cyberbullying is one of the fastest emerging trends and is prevalent daily. It could potentially cause severe effects on individuals and society if not curbed. Variations in internet browsing time proved significantly influence cyberbullying practices on social media. Therefore, every human being should have control over themselves and practice self-discipline to optimize the utilization of the internet courteously hence preventing them from getting involved in cyberbullying. This study contributes to the present body of knowledge on cyberbullying in digital media in Malaysia. The main contribution of this article provides directions for the harmonious interaction in digital platform. Suggestion for future study to explore the implications of cyberbullying behavior in Malaysia. This is valuable finding that contribute towards the harmony of a digital society in Malaysia, as well as achieving the national cybersecurity agenda.

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References

- Alias, B. (1997). *Statistik Penyelidikan dalam Pendidikan dan Sains Sosial*. Bangi: Universiti Kebangsaan Malaysia.
- Alim, S. (2017). Cyberbullying in The World of Teenagers and Social Media: A Literature Review. *International Journal of Cyber Behavior, Psychology and Learning* 6(2): 68-95.
- Ansong, E. D., Tony, T., Dominic, D., E. Afum, A., & Winfred, L. (2013). Internet Trolling in Ghana. *International Journal of Emerging Science and Engineering* 2(1): 42-43.
- Berita Harian. (2018). Ancaman Buli Siber, <https://www.bharian.com.my/berita/nasional/2018/01/370155/ancaman-buli-siber>, dicapai pada 17 September 2020.
- Bernamea. (2019). Buli Siber Perlu Ditangani Segera. <https://www.bernama.com/bm/news.php?id=1791049>, dicapai pada 17 September 2020.
- Che Hasniza, C. N., Yusri, M. I., & Fatimah, Y. (2018). Meneroka Ciri dan Faktor Buli Siber dalam Kalangan Remaja di Malaysia. Terengganu: Penerbit UMT.
- Griffiths, M. D. (2014). Adolescent Trolling in Online Environment: A Brief Overview. *Education and Health Journal* 32(3): 85-87.
- IPPBM. (2017). Buli Siber dalam Kalangan Remaja di Malaysia. <https://www.ippbm.gov.my/jdownloads/Infografik%20penyelidikan/Buli%20Siber%20Dalam%20Kalangan%20Belia%20Malaysia.pdf>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*.
- Mahdzan, A. (1985). *Kaedah Penyelidikan Sosioekonomi*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- MCMC. (2020). Media Statement: Changing Usage Patterns Influence. <https://www.mcmc.gov.my/ms/media/press-releases/media-statement-changing-usage-patterns-influence>
- Moriskey, L. (2010). Trolling is A Art: Towards A Schematic Classification of Intention in Internet Trolling. *Griffith Working Papers in Pragmatics and Intercultural Communication* 3(2): 75-82.

- Noriha, B., Ina Suryani, A. R., & Zaki, A. H. (2020). Analisis Tingkah Laku Sosiologi Masyarakat Berasaskan Teori Interaksionisme Melalui Perangkaan Data Kes Covid-19 di Malaysia. *PENDETA: Journal of Malay Language, Education and Literature* 11: 11-31.
- O'Neill, M., Calder, A., & Allen, B. (2014). Tall Poppies: Bullying Behaviors Faced By Australian High-Performance School-Age Athletes. *Journal of School Violence* 13(2): 210-227.
- Raphael, C. A. (2018), Social Responsibility on The Internet: Addressing The Challenge of Cyberbullying. *Aggression and Violent Behavior* 39: 42-52.
- RTM. (2020). Aduan Meningkatkan Lebih 90% Ketika PKP: SKMM dan Cybersecurity Usaha Tangani Jenayah Siber. https://berita.rtm.gov.my/index.php/nasional/19749-aduan-meningkat-lebih-90-ketika-pkp-skmm-dan-cybersecurity-usaha-tangani-jenayah-siber?fbclid=IwAR3fKm_PwDJTQVqzb_VAvLw4WxZceU3Ru9W0UAnXSFYT7s43g9hs3a7mFuA.
- Ruiz, R. M. N. M. (2019). Curbing Cyberbullying among Students: A Comparative Analysis of Existing Law among Selected Asian Countries. *PEOPLE: International Journal of Social Science* 4(3): 1285-1305.
- Sidek, M. N. (2007). Kesahan dan Kebolehpercayaan Alat Ukuran Vocational Preference Inventory oleh John L. Holland. *Jurnal PERKAMA* 13: 59-73.
- Sproles, G. B., & Kendall, E. L. (1986). A Methodology for Profiling Consumer's Decision-Making Styles. *WINTER* 20(2): 267-278.
- Zulkarnain, Z., & Hishamuddin, M. S. (2001). *Analisis Data Menggunakan SPSS Windows*. Skudai: Universiti Teknologi Malaysia.