



Peran Penelitian dan Inovasi di Era Industri 4.0 Dalam Mewujudkan Pembangunan Berkelanjutan Menuju Kemandirian Bangsa

Exploring World's Cyberbullying: It's Implication on Social Marketing

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ABSTRACT

Cyberbullying is an act of oppression to others to happiness in an appropriate way. Unlike the victim who feels unhappy due to depression, the bullies tend to feel happy and satisfied. In this study, we analyse the factors that make the number of cyberbullying in a country increase; there are Gross Domestic Product (GDP) and Human Development Index (HDI). Moreover, analysing happiness index as the factor that affected by cyberbullying is also conducted. The data were collected and analysed using the bivariate correlation analysis method. This study proved that GDP affects the HDI and then it will affect the number of cyberbullying in a country. Furthermore, a country's happiness index is influenced by the number of cyberbullying cases. All of the findings are used to creating the most appropriate social marketing concept strategy. As a result, the social marketing will run as efficiently as possible, and the decreasing number of cyberbullying in a country will be achieved.

Keywords

cyberbullying, GDP, HDI, happiness index, social marketing

1. INTRODUCTION

In this modern era, internet development can't be avoided any longer. Besides to make communication between humans easier, the internet is also considered very beneficial to businesses, governments and other organisations. The reason is that the internet eases the process of information distribution with a large amount of audience. Moreover, there are other benefits provided by the internet. A wide range of benefits offered makes the number of users growing. In Indonesia, internet users have been growing since 1998, and it reached around 139 million users in 2015.

However, a lot of benefits provided by the internet came along with the losses incurred due to the improper usage. For example, some users upload unpleasant posts, and it annoys other users on the internet. It occurs continually due to the absence of consequences. As a result, it creates a new crime called cyberbullying.

Cyberbullying is a suppression action by attacking someone's psychic using text messages through social media or forums that can be viewed and shared by many people [1]. Cyberbullying is done by sending, exposing, or sharing negative content that will embarrass and harm the victim. This will be more detrimental when the content is lies, or often called as a hoax. Cyberbullying involves the feelings of the bullies and their victims. However, both feel a different feeling. When cyberbullying happened, the victims tend to feel sad and ashamed, while the bullies tend to feel happy and satisfied because he can express himself. This wrong self-expression could have been because of the bullies' lack of well-being. Especially regarding the lack of knowledge about how to express themselves properly. Further, this lack of well-being is affected by economic conditions. Therefore, countries with good economic conditions result in the improvement of the wellbeing of its citizens that makes the country has fewer cases of cyberbullying.





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As the country with the sixth largest internet user in the world, Indonesian not escaped from the threat of cyberbullying. This is proved through a survey conducted by Ipsos in 2011 that shows that 53% of children in Indonesia experienced cyberbullying, which is the highest number compared to other 23 countries in the world.

The number of cyberbullying's cases is caused by people's lack of ability and understanding about how to express themselves and how to communicate on the internet properly. Therefore, they need be educated about it, and their behavior will change. In case to bring about these changes required an appropriate strategy and the involvement of the various parties. Both can be obtained through the application of social marketing. So, the creation of social marketing is required to decrease the number of cyberbullying's cases in a country. Therefore, this study was made with the aim of formulating social marketing in the case to decrease the number of cyberbullying in a country with the most appropriate strategy.

2. LITERATURE REVIEW

2.1 Cyberbullying

According to reference [2], bullying is aggressive behavior that is intentional suppression-shaped due to the difference of physical and social status. It repeatedly happens until the victim is hard to defend themselves. Bullying is also said to be a desire to hurt someone who demonstrated through a variety of activities that makes its victims suffer [3]. Also, actions to offend and hurt someone are also can be said as bullying [4]. So, it can be concluded that bullying is an adverse action in the form of physical or verbal repression repeatedly committed, occurred due to differences and imbalances between the physical and the social status of the bullies and victims that impact to victim's psychological depression.

At this time, bullying not done by face to face. It is because of the existence of internet that ease someone to do the bullying. Furthermore, it is referred as cyberbullying. In his book, Kowalski explains that cyberbullying is defined as an act of intimidation involving users of email, instant messaging, websites, chatrooms, and anything that is in the virtual world [2]. The Act of bullying intended to disturb and threatening an individual or group [5]. Additionally, cyberbullying also can be said as rough treatment done by someone or a group of people, using electronic tools that are done repeatedly and continuously to someone who feels challenging to defend himself [6]. After all, cyberbullying is a continuous act of intimidation, harassment or abusive

treatment through internet against the physical and verbal characteristics that can make the victims feel depressed, isolated, and even desire to commit suicide.

Based on a research result [7], cyberbullying can be divided into several categories, there are:

a. Give negative nickname

The type of cyberbullying is done by lously labeling and insulting the victim in the form of giving negative nickname [8]. It is indeed very dangerous to the victim because it can cause other people affected to do the same so that the nickname will be carried continuously. For example, give negative nickname can be done by calling someone with animal's name, his physical characteristic such as skin colour, or saying something rude.

b. Spreading victim's photograph

According to reference [7], covering victim's photo is a form of expression of the bullies to entertain himself and others by the victim as the objects of entertainment, in the case to embarrass the victim. For instance, spreading inappropriate and vulgar victim's photograph.

c. Threatened Physical Harm

Cyberbullying can threaten victim's physical harm. The forms of intimidation by using some words such as "kill" and "die" can be a severe threat to the virtual and the real world. It makes the victim feel fear and worry. As a result, the victim becomes afraid to come out of the House [8]. The examples of this form of physical threat are stalking, and it also can give the victim a desire to commit suicide.

d. Opinion Slammed

It is an opinion that delivered by the bullies with the intention of insulting or make the victim feel bad. This usually happens in a group so that the victims will be despised. As a result, the victim will have a psychological pressure if he is unable to hold it. For instance, spreading slander and hoaxes [7].

Two factors cause someone did cyberbully. There is some description of how both of these factors can affect the cyberbullying [8].

a. Internal factor

It is a factor that comes from the individual itself. For example, psychological factors. Psychological disorders and emotional disturbance can cause someone doing cyberbullying. The disease usually occurs due to the harsh treatment that causes trauma and revenge [9].





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b. External factor

The environment influences this kind of factors. For example, peer influences, less harmonious families, and non-educational television shows that will encourage a person to commit cyberbullying. Technological sophistication also supports the chance of doing cyberbullying. Also, the most apparent reason for cyberbullying is that the bullies feel satisfied when he feels influential among his group's friends as he fools the victim [10].

Further, this study explains some of the other factors that can affect the cyberbullying both directly and indirectly. Besides being influenced by other factors, cyberbullying is also affecting a country's happiness index.

2.1.1 Human Development Index

Human Development Index has a significant influence on cyberbullying. The higher the HDI of a country, the lower the number of cyberbullying cases and vice versa [11]. By having a high HDI level, a nation will have a longer life, more educated and have a higher standard of living. Furthermore, GDP is also affect cyberbullying, but indirectly. Since it is one of some factors the affect a country's HDI. With the higher GDP, the level of purchasing power or a reasonable standard of living is also increasing. In that case, it will have an impact on their patterns of behaviour. They will spend more time on positive things than doing negative things, such as cyberbullying.

HDI measures the overall achievement of one region/country in the three basic dimensions of human development. There is the length of life, knowledge and the status of a decent standard of living. All three are measured by life expectancy, educational attainment and per capita expenditure [12]. Moreover, reference [13] stated several socioeconomic indicators that describe the quality of life in several quantitative measures, such as economic capacity, ability in knowledge and skills and the ability to live longer and healthier. HDI aims to measure the success of performance regarding human development [14]. Based on this understanding can be seen that it has a fairly broad meaning. However, the main points described in it include positive growth in the economic, social, cultural and environmental aspects. Meanwhile, one of the successful in human development is income. So, GDP is an important indicator of human development. Therefore, it can be concluded that GDP and HDI tend to be related to HDI. However,

HDI is an enhanced welfare measure, while GDP is an old welfare measure [15].

And this is despite the warning made by the creator of the GDP, Kuznets, which states that 'The welfare of a nation can hardly be inferred from the measurement of national income as defined above But other research explains. Broadly speaking a form of growth is very carfully related to the concept of growth with welfare, the more productive the community, the higher the means to improve the lives of all its members. To increase GDP per capita equal to the increase of individual welfare [16]. Whereas BPS uses real per capita expenditure rates adjusted for purchasing power parity [14]. Thus, the primary objective of increasing GDP is targeted to countries with a low-level HDI such as in developing countries.

2.1.2 Happiness Index

Happiness is often linked when a person perceives health in life, whether healthy in their minds in their feelings [17]. Happiness or subjective well-being is often shared by a person who has a high welfare experience with his life that includes work, health, as well as positive feelings about pleasure, contentment and love at most of the time, and only experiences occasional negative feelings. The negative feelings are like levels of fear, anger, and depression [17]. This is related to the research [18] that claim all the bullying actions done to a person, significantly affect the victim in decreasing happiness and increasing depression in the victims. It means that when a person experiences depression is increasing, it has a low level of happiness. They also say that if bullying becomes more intense, so it will not only affect individual happiness but affect happiness in general.

This is inversely proportional to bullies' level of happiness. He will be happier if he bullying someone. This is constituted by the character of bullies that include depression [19] and anxiety [20]. Bullies seek their happiness instantly through the oppression of others who have an imbalance of power with him and can't defend himself [21]. This is done to protect himself because in his true sense he is threatened and has the thought that it is better to hurt than to be hurt [22] The chance to bullying is expanded with the internet media that now facilitate bullies to be able to give his opinion about someone anonymously [8]. Then, it is called as cyberbullying. If get the right intelligence, this phenomenon can spread to all levels of society, causing an increase in the level of happiness of a State but with a negative context

While it is difficult to measure a person's level of happiness, there are, in fact, many theories that can be used to examine a person's happiness that affects





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the general well-being. One of them is using a life satisfaction scheme named Steen Happiness Index. Tracy Steen and her colleagues developed this scale. The main purpose of this scale is to measure the changes in the level of satisfaction caused by positive psychological interventions [23]. Measuring welfare levels using this scale requires them to read the one that best describes them over the past week. According to Kaczmarek, Bujacz and Eid 2014, the measurement of satisfaction with life with Steen Happiness Index (SHI) is reliable and can be divided into two components [24]. A stable satisfaction causes the first component. The second component represents a special influence of opportunity. Although SHI has a fairly long form, SHI provides an opportunity to measure the unique aspects of situational wellbeing.

2.2 Social Marketing

Social marketing is a multidisciplinary field which contains the theory, research and application of a concept of marketing to encourage a social change [25]. The same thing is expressed by social International Marketing Association (ISMA), European Social Marketing Association (ESMA) and Social Marketing Australian Association Social Marketing (AASM). They agreed that the purpose of social marketing is to influencing behaviour that give will be beneficial for an individual or a community [26] through the development and integration of the marketing concept and another approach [27].

For approximately 40 years, social marketing is used to fight a lot of problematic behaviour [28]. Social marketing using generic marketing tools to promote voluntary behaviour change in the target audience for the collective well-being [29]. Although the theory and practice are still disputed until now, in fact, social marketing successfully proved its potential in various life's aspect. For example, the field of health [30], communications and transport [31] tourism and [29], succeeded recreation even in doing environmental protection and sustainable development [32].

Social marketing is not a science but rather to the professional activities of disciplines to create a program of intervention to modify human behaviour [6]. The main focus of social marketing is a change in behaviour. However, because the main focus itself, another dimension in social marketing is often forgotten, such as structural and environmental factors [33]. The existing evidence suggests that the influence of social marketing is more optimal when some criteria or benchmarks are used [34]. Although not all social marketing should have it [35], here are some descriptions of the criteria for benchmarking in

identifying approaches that can legally call as social marketing.

The first criteria are changing in behaviour. It is a benchmark used to design and evaluate interventions as the social marketing concept's ultimate goal [36]. In case to start this method required a thorough effort, inform or educate the target aren't enough, because the changing of behaviour will be hard to achieve.

Then, formative research should be done to support the projects of social marketing. It aims to investigate the needs of consumers and gain an understanding of the motives in the target that can be influenced to achieve the desired behavior changes [37]. The project consistently researches on the target audience to (a) understand at the beginning of the intervention (i.e., formative research), (b) the elements of pre-test routine intervention before being implemented, and (c) monitor the intervention when it launches.

The third component is segmentation. It mainly aims to classify the population based on the principal needs and unique motifs. This grouping process has to be done in the case to matching the marketing mix and promotion with the costumer's needs and wants. Similarly, there is careful segmentation in social marketing that can help concept designers to ensure maximum efficiency and effectiveness in the use of scarce resources [37].

Then, the main element of any influencing strategy is creating an interesting and motivational exchange for the target audience. The exchange of advantage that will be obtained from each party involved in this social marketing. The exchange can motivate people to engage on a voluntary basis with the intervention and offer something beneficial in return [38]. Identifies three aspects of exchange, there are the benefits that can be offered, efforts should be made by the target audience and intermediaries [36]. The exchange's main purpose is to lower the efforts and stressed or get more benefit on the side of the customer.

The next component is marketing mix. Social marketing strategies still apply the 4Ps of the marketing mix. Further than just the concept of social advertising, it should be able to offer a complete package of the interesting benefits (products) by minimizing the cost (price) as much as possible, make the exchange between social marketer with the target audience being easy (place) and communicate strong message that is preferred by the target audience (promotion). Applying promotion in social marketing required more efforts than usual promotional activities. The difference in the concept





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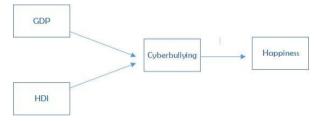
of social marketing and commercial marketing is on the products. The commercial marketing products are goods or services. Whereas, social marketing product is ideas and patterns of behavior change. Also, other differences can be seen based on the application of the 4ps. Moreover, reference [39] adds the variables becomes 7p, i.e., personnel, process, and presentation. Finally, full attention must be given by social marketers to the competition as the resistance to reach the desired behavior.

Social marketing can be used to solve various social issues, including cyberbullying, which is caused by technology's misuse. So, social marketing program can be applicated to reduce the cases of cyberbullying. It should be designed based on the individual's patterns of behavior. Based on the Theory of Planned Behavior [40], individual's behavior is highly influenced by the individual's intention towards particular behavior. Further, the theory also states that intention is affected by three important components, there are attitude/attitudes, subjective norms/norm subjective and self-efficacy. Currently, some empirical research which found that an individual's attitude changing toward something will cause a change of intention that will eventually change human behavior [41]. For example, a country who is a success to reduce the

number of bullying and cyberbullying with social marketing concept is Finland. Before the application, research on patterns of behavior has been conducted for 20 years at the University of Turku Finland. It creates Kiva program. An anti-bullying program that called as Kiva is an innovative school-based and have been developed based on cutting-edge research towards intimidation and its mechanism. Kiva is a system that involves teachers, pupils and parents. Kiva's principle is applicating character norm groups and ask the pupils to not intimidating and insulting each other. Empathy, sense of responsibility, and socialise ethics are taught to the pupils. The lesson material is in the form of video, online gaming, social media, and poster as a fun learning object [42].

3. RESEARCH METHOD

This research used secondary data obtained from the survey Institute IPSOS, the World Happiness Report, the World Bank Report and Wikipedia. Cyberbullying cases and the Human Development Index in 24 countries data are gained from IPSOS survey. While the country's happiness index data is gained from World Happiness Report. Lastly, through data on Wikipedia, we obtain data on Gross Domestic Product of these countries. All data is data that is taken in 2011. In this study, researchers used the bivariate correlation analysis method of in SPSS.



Picture 1. Framework cyberbullying factors and its impacts on happiness index model

4. DATA ANALYSIS

This study uses SPSS to analyse data with bivariate correlation analysis methods with significance level 0,05. First, examination of the correlation between Human Development Index with Gross Domestic Product is performed. From the table below, we can see that the correlation between Human Development Index with Gross Domestic Product is 0.000 which is less than $\alpha = 0.05$. It means there is a significant correlation. Meanwhile, the Pearson Correlation shows 0.858, meaning that the Human Development Index and Gross Domestic Product have a very strong relationship. While the relationship is directly proportional because positive. It means that the higher the GDP, the higher the HDI. The next analysis, correlation between Cyberbullying with HDI found that the correlation between them is 0.028 which is less than α . It means there is a significant

correlation between them. Meanwhile, the Pearson Correlation show -0.449, meaning that HDI and Cyberbullying have an intermediate level of relationship. While the relationship is inversely proportional because the numbers are negative. It means that the higher the HDI, the lower cyberbullying cases in a country. Third, another analysis of the correlation between Cyberbullying with GDP, the correlation between them is 0.131 which is more than α . It means there is no significant correlation between GDP and Cyberbullying. It is proved by the Pearson Correlation that shows -0.317. meaning that GDP and Cyberbullying have a low level of relationship. While the relationship is inversely proportional because the numbers are negative.





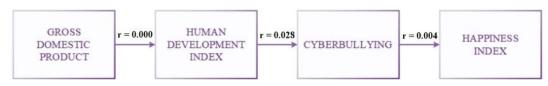
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Table 1. The result of bivariate correlation analysis

		GDP	HDI	Cyberbullying	Happiness
GDP	Pearson	1	0.858	-0.317	0.086
	Correlation				
	Sig. (2-tailed)		0.000	0.131	0.691
HDI	Pearson	0.858	1	-0.449	-0.200
	Correlation				
	Sig. (2-tailed)	0.000		0.028	0.350
Cyberbullying	Pearson	-0.317	-0.449	1	0.561
	Correlation				
	Sig. (2-tailed)	0.131	0.028		0.004
Happiness	Pearson	0.086	-0.200	0.561	1
	Correlation				
	Sig. (2-tailed)	0.691	0.350	0.004	

The next bivariate correlation conducted between Happiness Index with Cyberbullying. The result that the correlation between them is 0.004 which is less than a. It means there is a significant correlation between Happiness and Cyberbullying. Meanwhile, the Pearson Correlation shows 0.561, meaning that Happiness and Cyberbullying have an intermediate level of relationship. While the relationship is directly proportional because the numbers are positive. It means that the higher the Happiness, the higher the Cyberbullying. Then, analysis between Happiness Index with GDP. The result is that the correlation between Gross Domestic Product with Happiness Index is 0.086 which is more than α . It means there is no significant correlation between GDP and Happiness Index. It is proved by the Pearson

Correlation that shows 0.086, meaning that GDP and Happiness Index have a very low level of relationship. While the relationship is directly proportional because the numbers are positive. Furthermore, tests on the correlation between Happiness Index and HDI are conducted. The result is that the correlation between Happiness index with HDI is 0.350 which is more than α . It means there is no significant correlation between Happiness Index and HDI. Meanwhile, the Pearson Correlation show -0.200, meaning that Happiness Index and HDI have an intermediate level of relationship. While the relationship is inversely proportional because the numbers are negative.



Picture 2. Summary of Tested Model

5. DISCUSSION

Based on the data analysis that has been done, there are some of the results obtained and can be meant more in this section. First, the results of the analysis of the data show that there is a significant relationship between GDP and the HDI, with a directly proportional relationship. The results of this study by previous studies which also States that GDP affects HDI [43]. This indicates that the country who wants to increase its HDI should also increase the GDP which means fixing the economic conditions in the country.

The results of the second analysis showed that there was a significant correlation between the HDI with Cyberbullying in a country, with an inversely proportional relationship. This is by the understanding of the HDI which is the process of

developing human life choices [44]. The higher a country's HDI figures an increasingly wide life's choice, including regarding finding happiness. People in countries with lower HDI will have a limited choice of finding happiness, so they are likely to find happiness in a way that shouldn't have, for example, by doing the cyberbullying. This indicates that if a country wants to decrease the number cases of cyberbullying, then there should be an increase in HDI, which in a way to improve the prosperity of its people in various aspects.

Other results showed there was no significant correlation between Cyberbullying with Gross Domestic Product in a country. This is by previous research suggesting that GDP did not correlate significantly with cyberbullying at the country level, but at the regional level [45]. Because at the country





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level, the coverage becomes wider. So, more variable involved is needed which lead to the occurrence of a case of cyberbullying could not only affected by GDP individually.

Then, the result shows that there is a significant correlation between Happiness with Cyberbullying in a country. With a directly proportional relationship. It indicates that the higher the Happiness Index, the higher the number of Cyberbullying that occurs. This is in line with an earlier study. It stated that one of the motivations of cyberbullying is to find pleasure and reduces the stress experienced by the bullies [46]. This indicates that the bullies make cyberbullying as entertainment so that he could be someone who is happier.

Furthermore, research shows that there is no significant correlation between Happiness Index with GDP. This was approved by the previous research result. It declares that a country's happiness index is not directly influenced by the condition of the economy or GDP. Because a person who has sufficient financial capability mostly blundered in various decision making, which will lead him not to meet his happiness [47]. In short, happiness index can't be influenced by GDP individually, but there must be involvement from other factors.

The last result found that there is no significant relationship between Happiness Index with HDI. This is by the results of previous research. It States that the factors that most influence a country's happiness index consists of a combination of several things, such as corruption, low HDI and high unemployment rate low [48]. So, in determining a country's happiness index using the HDI should be coupled with other aspects.

6. MANAGERIAL IMPLICATION

Reminding that cyberbullying can become a national problem, prevention and handling effort should not ignore important constructs in social marketing concept that is considered capable of assisting in handling this problem. Social Marketing Program "Keep Productive, Stay Positive" is the program proposed by the authors in facing cyberbullying, in Indonesia. This program offers products and services to minimise the level of cyberbullying itself. The product of this social marketing concept is the CATACA application (Find Out How). The CATACA application contains education about how to use technology in a good way. This application is a mediator for individuals to be able to open their minds about the world. Through this application, the victims of cyberbullying can share their problems and find out how to get out of the persecution they have

been through all this time. Besides the victim, the bullies who have pressure in the psychological background can also use this CATACA application to end the useless activities they had performed before and diverted them to develop their potential.

The CATACA application is also used as a positive forum to create an anti cyberbullying community. Where this community will provide positive and interesting activities to be followed by adolescent and children as a means of replacing their activities in cyberspace. It aims to make the ideas, energy and time they usually spend seeking happiness through cyberbullying can be channeled into things that are positive and beneficial for the development of themselves to become more productive. This community also becomes a forum for sharing experiences among members who may have the same experience about cyberbullying cases. Another thing that can be done by this community is related to the development of softskill from the individual based on their interest. The development of skills on each user will bring them to various benefits, one of them is they can be a creator and productive in their youth age. This will greatly beneficial for them both in the present and future. At the youth age, they can offer their creations into a product or service that will benefit financially. While in the future, they will be more capable of determining their direction and having their respective roles in the society.

In addition to developing social marketing concepts aimed at victims and bullies, the program "Keep Productive, Stay Positive" will help minimise the level of cyberbullying through the parents. Carrying the concept of "Indonesia Smart Family", parents will be educated about cyberbullying and its dangers for their child's growth. Through the CATACA application that provides discussion forums for users, in addition to communities of victims and observers of cyberbullying, it is expected that communities will also be available to elderly victims and volunteers who want to help minimise cyberbullying cases from happening to their children or even other children.

In case too attract the public interest in this program, the involvement of influencers in cyberspace to participate in the campaign this program. An influencer who has a big influence can promote implicitly through campaigns his social media such as Instagram, Facebook, Twitter and Youtube via their account. Nowadays, something can become viral when it begins to be propagated and helped by pubic figures. This will be considered cool and become a pride when we are also involved in it. By giving hastag and make it become a trending topic, "Keep Positive, Stay Positive" is expected to arouse





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the individual's hearts and desires to follow the activities in this social marketing program.

Gaps in technology between all regions in Indonesia also become an obstacle for this social marketing program to spread its benefit for all Indonesian. This can be overcome by CATACA Tour de Indonesia promotion program. The CATACA Tour de Indonesia concept is that the "Cyber Army" visits to all regions in Indonesia to socialise the "Keep Productive, Stay Positive" program and to prevent and provide awareness that cyberbullying is dangerous.

7. LIMITATION AND RECOMMENDATION

This study shows the empirical evidence regarding the influence of GDP effect HDI and its effect on cyberbullying. It also reveals cyberbullying effect on happiness index. This research discusses two factors cause action cyberbullying, i.e. internal factors and external factors, but not in depth. Future research could add understanding of the psychological factors in depth as well as the influence of the environments such as the role of parents that significantly affect the behavior of bullies as well as the role of teachers and staff to prevent or reduce cyberbullying.

Then, this study adopts secondary data collection methods, who serves as the primary source of

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research. Research could be stronger if primary data is added so that the authors understood the circumstances in the field. Further research will need to involve direct observation methods through indepth interviews or group discussion. Not only with the bullies but also with other roles in cyberbullying such as victims and bystanders for thorough understanding.

Awareness about cyberbullying actions through the definition, its type and its causes are provided in this study. However, this study does not discuss more the type of device used, access to action within the device or usage pattern (such as frequency and location). Further research should address these issues as they can provide a more detailed picture of behavior patterns that can adapt to adjustment of intervention efforts to be undertaken.

A fast-technological changing also becomes a challenge for this research that discusses matters related to technological progress. This study is discussing the virtual world that indirectly influenced by changes in increasingly sophisticated devices that are the result of technological developments. Future research needs to do research at the appropriate time and be able to follow the trend in society to be able to give proper direction on how to handle this cyberbullying case appropriately.

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APPENDIX 1 Secondary Data

Country	ntry GDP (in million dolar)		Cyberbullying	Happiness
Indonesia	8837.820122	HDI 0.617	0.53	0.93
Sweden	43755.06044	0.904	0.51	0.81
India	4635.879137	0.547	0.45	0.89
Australia	41782.28494	0.929	0.35	0.88
Turkey	19660.88949	0.699	0.34	0.87
Canada	41565.27122	0.908	0.31	0.86
South	12118.73786	0.619	0.3	0.79
Africa				
Mexico	15922.89816	0.770	0.28	0.76
South	31228.5107	0.897	0.28	0.69
Korea				
Argentina	19629.35185	0.797	0.27	0.67
Brazil	14973.09847	0.718	0.26	0.79
United	49790.66548	0.910	0.25	0.85
States				
Great	36607.98109	0.863	0.25	0.79
Britain				
Saudi	48524.63249	0.770	0.24	0.83
Arabia				
China	10384.3666	0.687	0.24	0.78
Poland	22850.63885	0.813	0.2	0.71
Italy	36347.34248	0.874	0.15	0.78
Russia	24310.04397	0.755	0.15	0.64
Japan	35774.69671	0.901	0.12	0.69
Belgium	41248.72534	0.886	0.12	0.82
Germany	42692.51976	0.905	0.11	0.8
Spain	32068.27093	0.878	0.11	0.63
Hungary	22841.21034	0.816	0.11	0.44
France	37457.28486	0.884	0.1	0.84