

Measures to prevent and solve digital media crime problems of youth

Kalyarat Jarukornjindarath¹, Sudawan Somjai², Duangkamon Chantararatmanee³

^{1,2,3} Ph.D. Program in Development Administration, Suan Sunandha Rajabhat University, Thailand

² s60584917029@ssru.ac.th

ABSTRACT

The objectives of this research were 1) to study the level of digital media literacy, digital intelligence, participation, ethics in the digital media age, and measures to prevent and solve digital media crime problems on youth, 2) to study the digital media literacy, digital intelligence, participation, and ethics in the digital media age influencing the measures to prevent and solve digital media crime problems on youth, and 3) to propose the guidelines for the measures to prevent and solve digital media crime problems on youth. The research results revealed that 1) the measures to prevent and solve digital media crime problems on youth were at the most important level. The digital media literacy, digital intelligence, ethics in the digital media age, and participation were at the much important level. 2) The key factors influencing the measures to prevent and solve digital media crime were digital media literacy, digital intelligence, ethics in the digital media age. 3) The guidelines for the measures to prevent and solve digital media crime problems on youth were that the government agencies should impose penalties, enforce the law seriously, monitor the youth, and establish the agency that directly advised young people on the digital media crime

Keywords

Digital media, danger, youth

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Introduction

The world is rapidly advancing due to the use of technology to connect information of all regions of the world altogether with the social transformation trends that arise in the 21st century. The skills of the 21st century people everywhere which people must learn throughout their lives are Media Literacy (Wijarn Panich, 2012). Media plays a huge role in life-long learning of people in society as well as playing the roles in sustaining life, cultivating beliefs, attitudes, ideas, values, evaluation of various stories and the practices in various aspects of the society. The digital media has an increasing influence on the learning of young people. The era of the rapidly changing world trend causes children and youth to spend time in the media around more than doing other activities which are more beneficial to the body and mind. This group of youth is also known as Generation Z. This is considered the recipient group consisting of the new generations who are becoming an important force in driving Thai society towards the future. Generation Z are those who were born between 1994 and 2019, aged 1-18 years. They can be regarded as the youngest population group. Many countries recognize that children and youth are the most important and future generations of the nation. Children are people who are young with age not over 15 years while youth refers to those who are over the age of 15 but not yet 18 years of age (Juvenile and Family Court and Juvenile and Family Procedure Act B.E.2553 Section 4). In the vision of general public, it can be considered a group of inexperienced persons lacking knowledge in various fields. Learning and training from surrounding adults are the important factor for children and youth to grow up to be good adults physically, mentally, and in behaviors (ECPAT Foundation, 2012).

There are 4 types of online crisis situations or digital life problems among Thai youths; online bullying to scold one

another with rude texts for 49% editing photos, accessing to pornography and talking about sex with strangers online for 19%, being addicted to games for 12%. The gaming problems, being addicted to games, and e-sports are becoming increasingly important variables for solving children's game addiction problems. It is an opportunity to turn kids into bounty game players or it may lead to a problem of creating hope, dream to play professional games. However, it may become more game addiction if the government and parents do not pay attention to them and the children may be lured out to meet strangers for 7% (summary of online media situation with Thai children and youth, 2017).

Young people in the digital media age do not know what the Internet is like in the past. As soon as the youth grows, they already use the social media. This group of young people (Generation Z) will not know that social media in each country is the area of the affiliate companies such as Facebook or Twitter. UNICEF indicates the advantages of digital technology in helping the children and youth to access the sources of information and bigger communities. It helps creating the opportunities for the future in work and career. However, UNICEF warns against the disadvantages as well. They point out that the internet can bring harmful and stressful things especially for children and young people who are not familiar with the Internet to use it prudently. UNICEF indicates that youth has not yet been protected from the dangers of the digital world (Internet Foundation for the Development of Thailand, 2017). Another problem that should not be overlooked is "online bullying". In the future, many digital items enter daily life. What will come into trouble is personal information, behavioral problems, and learning among children and young people in the digital age. Brain Wallaces (Brain, 2013), the researcher who is an associate judge of the Juvenile and Family Court of Sakon Nakhon Province and plays a role in taking care of children and youth, from his work experience, the causes of offenses

of children and young people have been identified through digital media for not less than other offenses. They act without knowing and lack restraint. The children and young people are more sensitive and lack experience in life. The researchers are interested in studying measures to prevent and solve problems from digital media on youth by setting Sakon Nakhon Province for data collection. The research is for enabling children and young people to distinguish media from strong knowledge bases by being cognizant of the media and using it creatively as well as raising awareness of media creators.

Research objectives

The objectives of this research were 1) to study the level of digital media literacy, digital intelligence, participation, ethics in the digital media age, and measures to prevent and solve digital media crime problems on youth, 2) to study the digital media literacy, digital intelligence, participation, and ethics in the digital media age influencing the measures to prevent and solve digital media crime problems on youth, and 3) to propose the guidelines for the measures to prevent and solve digital media crime problems on youth.

Research methodology

For the quantitative research, the sample used in the research is a group of youth aged 15-18 years studying at the secondary level or equivalent in Sakon Nakhon Province. The sample size was calculated according to the statistical analysis technique of multivariate type using the structural equation modeling (SEM). It was suggested that a sample should be approximately 20 times the observed variable (Grace JB, 2008). The conceptual framework of the researchers defined 18 variables and 360 samples were calculated for consistency with analytical techniques and data accuracy. The data were collected by using the probability theory and stratified random sampling. The proportionality was calculated based on the percentage of the samples. The research tool was questionnaire. The researchers obtained the Index of Item Objective Congruence (IOC) from 0.6-1.00. All of 90 questions can be applied with the reliability statistics calculated using the alpha coefficient method. It was found that the overall reliability statistics were 0.946 higher than 0.70. Thus, it was considered quite reliable.

For the qualitative research, the data were collected by in-depth interviews from the key informants divided into Group 1: Executives or government officials, Group 2: Executives or operators of digital media, and Group 3: Parents, community leaders. The baseline criteria was set for those who have experienced for at least 5 years. The purposive selection method was used on 15 persons to verify the accuracy and reliability of the data obtained from the in-depth interviews. The researchers used the triangulation in considering the consistency and the difference of information from time, place and person sources.

From the research objectives, the researchers studied the concepts, theories and related researches to construct a structural model of the relationship among variables

including measures to prevent and solve digital media crime problems on youth (PMDM), media literacy (MELI), digital intelligence (DIIN), participation (PART), and ethics in the digital media age (ETDM). The data obtained from the questionnaire’s respondents were analyzed using the descriptive statistics for finding the frequency, percentage, mean, standard deviation, coefficient of variation (CV), and inferential statistics. The structural equation modeling (SEM) was analyzed to test the relationship between latent and observed variables and the relationship between independent and dependent variables.

Research results

The measures to prevent and solve digital media crime problems on youth were of the highest level of importance followed by others at the high level of importance as shown in Table 1.

Table 1 Analysis, comparison and ordering of all latent variables

Total of latent variables (TOT)	Number	Mean Statistics	Std. Deviation Statistics
Media literacy (MELI)	360	4.03	.63
Digital intelligence (DIIN)	360	4.09	.66
Participation (PART)	360	3.73	.71
Ethics in the digital media age (ETDM)	360	4.09	.69
Measures to prevent and solve digital media crime problems on youth (PMDM)	360	4.29	.66

From Table 1, they can be sorted as follows. Measures to prevent and solve digital media crime problems on youth (PMDM) had the mean of 4.29, ranked the first. It was followed by ethics in the digital media age (ETDM) and digital intelligence (DIIN) with the mean of 4.09, Media Literacy (MELI) with the mean of 4.03 and lastly, participation (PART) with the mean of 3.73. This showed the correlation and influence from joint data analysis to verify the consistency of the model with the empirical data after the effect of the last modulation as shown in Figure 1.

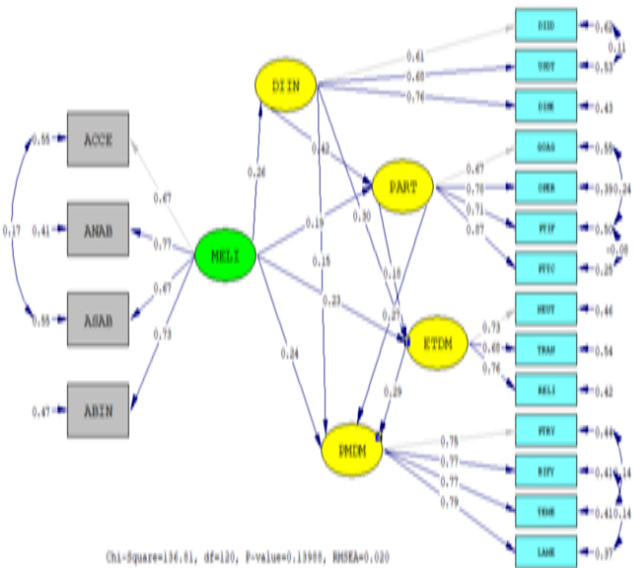


Figure 1 Analysis to verify the consistency of the model with the empirical data

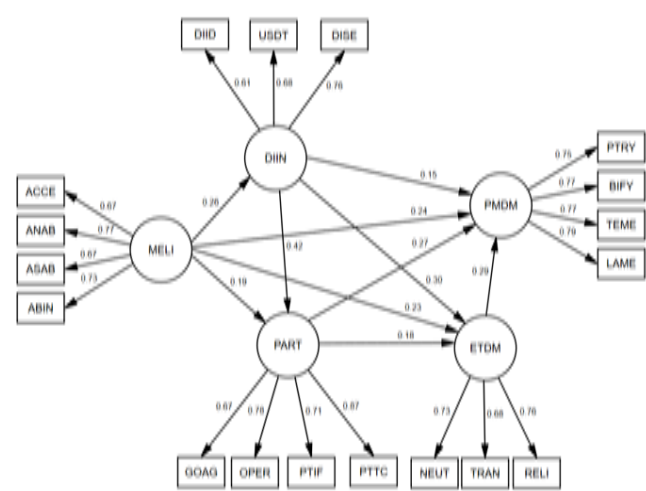


Figure 2 Structural equation

Goodness of Fit-index	Criteria	Measured indices	Results consideration of
1) Chi-Square (χ^2), P-Value	$p>0.05$	0.12	Passed
2) Chi-Square (χ^2)/df	<2.00	1.15	Passed
3) CFI	≥ 0.95	1.00	Passed
4) GFI	≥ 0.95	0.96	Passed
5) AGFI	≥ 0.95	0.94	Passed
6) RMSEA	<0.05	0.020	Passed
7) RMR	Nearly 0	0.027	Passed
8) SRMR	<0.05	0.042	Passed
9) CN	≥ 200	414.28	Passed

Table 2 Assessment on the conformity with the empirical data of the model

From Table 2 showing the criteria on the assessment of conformity with the empirical data of the model, it was found that the overall model fitness was $\chi^2=138.81$, $df=120$, $p=0.12$, $\chi^2/df=1.15$, $CFI=1.00$, $GFI=0.96$, $AGFI=0.94$, $RMSEA=0.020$, $RMR=0.027$, $SRMR=0.042$, $CN=414.28$.

Table 3 Structural equation model analysis results

(Antecedents)	Consequences											
	DIIN			PART			ETDM			PMDM		
	DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
MELI	0.26*	-	0.26*	0.19*	0.11*	0.30*	0.23*	0.14*	0.37*	0.24*	0.23*	0.47*
DIIN	-	-	-	0.42*	-	0.42*	0.30*	0.08*	0.38*	0.15*	0.23*	0.37*
PART	-	-	-	-	-	-	0.18*	-	0.18*	0.27*	0.05*	0.32*
ETDM	-	-	-	-	-	-	-	-	-	0.29*	-	0.29*

From Table 3, the structural equation model analysis results revealed that:

1) The media literacy (MELI) influences the digital intelligence (DIIN), participation (PART), ethics in the digital media age (ETDM), and measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the coefficients of 0.26, 0.19, 0.23, and 0.24 which is positive influence. It can be said that the increase of media literacy (MELI) will result in the increase of digital intelligence (DIIN), participation (PART), ethics in the digital media age (ETDM), and measures to prevent and solve digital media crime problems on youth (PMDM). Meanwhile, if the media literacy (MELI) decreases, the digital intelligence (DIIN), participation (PART), ethics in the digital media age (ETDM), and measures to prevent and solve digital media

crime problems on youth (PMDM) will decrease as well. Moreover, it is also found that the media literacy (MELI) indirectly influences the participation (PART), ethics in the digital media age (ETDM), and measures to prevent and solve digital media crime problems on youth (PMDM) with indirect statistical significance at level 0.11, 0.14, and 0.23, respectively, which is positive influence. It is also found that the media literacy (MELI) has the total influence on the digital intelligence (DIIN), participation (PART), ethics in the digital media age (ETDM), and measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the total coefficients of 0.26, 0.30, 0.37, and 0.47, respectively.

2) The digital intelligence (DIIN) influences the participation (PART) and ethics in the digital media age (ETDM) with statistical significance at level 0.01 having the coefficients of 0.42 and 0.30 which is positive influence. It can be said that the increase of digital intelligence (DIIN) will result in the increase of participation (PART) and ethics in the digital media age (ETDM). Meanwhile, if the digital intelligence (DIIN) decreases, the participation (PART) and ethics in the digital media age (ETDM) will decrease as well. Moreover, it is also found that the digital intelligence (DIIN) influences the measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.05 having the coefficient of 0.15 which is positive influence. It can be said that when the digital intelligence (DIIN) increases, the measures to prevent and solve digital media crime problems on youth (PMDM) will increase. Meanwhile, if the digital intelligence (DIIN) decreases, the measures to prevent and solve digital media crime problems on youth (PMDM) will decrease as well. Moreover, it is also found that the (DIIN) digital intelligence indirectly influences the ethics in the digital media age (ETDM) and measures to prevent and solve digital media crime problems on youth (PMDM) having the indirect coefficients of 0.8 and 0.23 which is positive influence. It is also found that the digital intelligence (DIIN) has the total influence on the participation (PART), ethics in the digital media age (ETDM) and measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the total coefficients of 0.26, 0.42, 0.38, and 0.37, respectively.

3) The participation (PART) influences the measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the coefficient of 0.27 which is positive influence. It can be said that the increase of participation (PART) will result in the increase of measures to prevent and solve digital media crime problems on youth (PMDM). Meanwhile, if the participation (PART) decreases, the measures to prevent and solve digital media crime problems on youth (PMDM) will decrease as well. Moreover, the participation (PART) influences the ETDM with statistical significance at level 0.05 having the coefficient of 0.18 which is positive influence. It can be said that when the participation (PART) increases, the ethics in the digital media age (ETDM) will increase as well. If the participation (PART) decreases, the ethics in the digital media age (ETDM) will also decrease. Besides, the participation (PART) indirectly influences the measures to prevent and solve digital media crime problems

on youth (PMDM) having the indirect coefficient of 0.05 which is positive influence. It is also found that the PART has the total influence on the measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the total coefficient of 0.32 while having the total influence on the ethics in the digital media age (ETDM) with statistical significance at level 0.05 having the coefficient of 0.18, respectively.

4) The ethics in the digital media age (ETDM) directly and totally influences the measures to prevent and solve digital media crime problems on youth (PMDM) with statistical significance at level 0.01 having the coefficient of 0.29 which is positive influence. It can be said that the increase of ethics in the digital media age (ETDM) will result in the increase of measures to prevent and solve digital media crime problems on youth (PMDM). Meanwhile, if the ethics in the digital media age (ETDM) decrease, the measures to prevent and solve digital media crime problems on youth (PMDM) will decrease as well.

For the guidelines on the measures to prevent and solve digital media crime problems on youth, it is found that government agencies should impose sanctions against entrepreneurs illegally for profit from youth. Serious penalties should be enforced to scare entrepreneurs. The family members and teachers have to look after the youth and give correct advice to young people in the use of digital media. The private sector should be required not to exploit youth by fraudulent advertising. The research results are useful to the Department of Child and Youth Affairs and Office of The National Broadcasting and Telecommunications Commission to be used as a measure to resolve the dangers of digital media, reduce crime, and enhance knowledge and understanding of youth in the proper use of digital media. For qualitative research, the key points can be summarized from the 15 key informants including media literacy, digital intelligence, participation, and ethics in the digital age influencing the measures to prevent and solve digital media crime problems on youth. It is a confirmation of the quantitative research results.

Discussions of research results

Discussion of results following the 1st research objective:

The research results showed that the measures to prevent and solve digital media crime problems on youth have the highest level of importance consisting of 4 elements; protection on youth rights, immunization for youth, technological measures, and legal measures. This is in accordance with the awareness of how to protect oneself from various dangers in order not to become the victim or have to become the culprit and to be able to live in a normal society. The operational framework is as follows (Department of Juvenile Observation and Protection, 2017). The Self-Defense from Social Hazards is to enhance the skills, knowledge and understanding for children and youth to suit each age group in order to protect themselves and to be aware of dangers possibly happening whether it is the perils of crime or online social media threats. This can prevent children and youth from becoming perpetrators or

become a victim without knowing. Building awareness and self-discipline is the cultivation of appropriate personality traits through the learning process both in thinking logically and being aware of the consequences of one's actions with emotional control and assertive. The children and youth will be helped to live in society without violating others and the laws. Being aware of and staying away from drugs, educating, understanding of drug harms, and learning various life skills allow the youth to avoid getting involved with drugs. The immunization of children and young people to have knowledge, understanding and correct attitudes about drug dangers is another way to help preventing and solving drug addiction as well as problems during adolescence. The anti-corruption, focus on creating values and culture of loving and respecting the rights, honesty and resistance of corruption in all forms are in line with the cooperation between various departments. Another important thing is the need for a network security agency to cope especially with the emergence of computer security problems and is the center to assist in various fields including giving advice on methods or solutions. Currently, the National Electronics and Computer Technology Center or NECTEC has established the Thai Computer Emergency Response Team (ThaiCERT) to be the organization to assist and provide technical information about inspection and security of computers for those interested in both public and private sectors as well as being the agency to notify the incidents of computer security breaches.

Discussion of results following the 2nd research objective

The media literacy influences the preventive measures to tackle the digital media hazards of youth. It can be discussed that media literacy consists of four components; accessibility, ability to analyze, ability to assess, and ability to express the meaning. The media literacy arises on the basis of the belief that the media influences recipients in any way. At present, the conditions of social consumerism under globalization makes the media involved in determining thoughts, intentions, implications and ways of life. The media literacy is important is imperative to provide individuals with the means to prevent themselves from becoming "victims" in the communication, media literacy and literacy processes. The digital media literacy includes the ability to access media, analyze, compose, reflect, and the ability of taking action. These skills are the life-based skills. It is correspondent with the definition of UNESCO on Media and Information Literacy that is the series of potential to empower people to access, retrieve, understand, evaluate, use, create, and share information and contents in all forms of media. They have a critical skill-based approach in the use of a variety of communication tools with critical thinking. They have ethics and productivity in order to be able to participate and be related to various activities at the personal, professional and social levels. This is for building a knowledge-based society which is important to economic and social development and has a common goal to promote life-long education, building a knowledge society that is beneficial as well as supporting the participation of citizens in society. This is in line with Potter (2005), Center for

Media Literacy (2008), Tallim (2005), Buppha Meksrithongkam (2009) and Phana Thongmeeakom (2014).

2.2 The digital intelligence influences the preventive measures to tackle the digital media hazards of youth. It can be discussed that the digital intelligence consists of three components; digital self-identification, use of digital tools, and digital security. The entire picture of social competence, emotions, and knowledge are essential to digital life. Having knowledge, skills and the adaptability to people's emotions and behaviors can meet the challenges and needs of the digital age. This agrees with Yuhyun Park (2017), Simon Waller (2015), Cohen and Up Hoff (2015) and Jernsak Pinthong (2013).

2.3 The participation influences the preventive measures to tackle the digital media hazards of youth. It can be discussed that the participation consists of four components; government agencies, media entrepreneurs, family members, and community members. The principles and techniques of participatory practices are the powerful tools to help the community and its people play roles and duties altogether to think and analyze their own situations, identify problems, and determine alternatives for improvement. This includes the division of duties and responsibilities with people outside the community to facilitate the process. The real cooperation is required to develop resources, environment and society which is the development from the bottom to the top. The government must accept the participation of the people. People must be able to represent in negotiations with interest groups and others. They must have thought and courage at the local level for the development and determination of their own activities. This is in consistence with Chomdee (2011).

2.4 The ethics in the digital age influences the preventive measures to tackle the digital media hazards of youth. It can be discussed that the ethics in the digital age consists of three components; impartiality, transparency and credibility. The results of traditional ethical conduct are on media duties, especially on standards of veracity, issues, definition questions on "facts" via online communication saying in the same as or different from the definition of traditional news media. The verification of information and facts still use traditional approaches and thinking methods. This issue causes a large impact when User-generated Content (UGC) is used. It corresponds with Wasserman (2010), Kovach and Rosenstiel (2015), Brauchli (2011) and Buttry (2009).

Discussion of results following the 3rd research objective:

The research results revealed that from the interview with the informants, they agreed that the government agencies should impose sanctions against entrepreneurs illegally profiting from youth. Serious penalties should enforced to scare entrepreneurs. The family members and teachers have to look after the youth and give correct advice to young people in the use of digital media. The private sector is required not to exploit youth by fraudulent advertising. The research results are useful to the Department of Child and Youth Affairs and Office of The National Broadcasting and Telecommunications Commission to be used as a measure to resolve the dangers of digital media, reduce crime, and

enhance knowledge and understanding of youth in the proper use of digital media. This is consistent with setting minimum standards of foster care, training, teaching and developing the surrounding society. There are guidelines for the treatment of children that are appropriate, not discriminating against unfairly. It is in accordance with the National Child and Youth Development Promotion Act B.E.2550, Section 7, stating that all children and youth have the right to have birth certificate registered, development, acceptance, protection and opportunities for participation as prescribed in this Act or other relevant laws equally without discrimination. The government has therefore established a national policy and plan for child and youth development to provide a master plan in defining the scope and direction of national child and youth development in accordance with the standards of treatment of children and youth

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