Influences of Online Lifestyle on Juvenile Cybercrime Behaviors in Taiwan

Li-Hsing Ho, Yi-Tien Lin*, Chun-Hsiang Huang

Abstract

This study aims to understand the status quo and changes of juvenile cybercrimes. Online lifestyle variables in Taiwan can serve as good predictors of juvenile cybercrime. Based on an analysis of the results, this study proposes a number of effective recommendations and guidelines for parents, schools, and institutions striving to prevent and reduce cybercrimes.

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Keywords: Internet lifestyle; Internet crime; Juvenile cybercrime

1. Introduction

The number of juvenile criminals in Taiwan has increased drastically in the past few years. According to statistics provided by the Criminal Investigation Bureau, the number of juvenile criminal incidences rose from only 9 in 2001 to 907 juvenile criminal suspects at the end of 2010. These numbers represent undeniable warning signals indicating a rapid increase in juvenile cybercrimes.

The goals of this study are twofold: First, this study analyzes the influence of Internet usage variables on juvenile cybercrime behaviors in Taiwan. Second, based on these findings, this study proposes preventive strategies to combat juvenile cybercrime and effectively avoid a continuous increase in these behaviors. Only then can Taiwanese youths live in a safe cyber world.

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2. Theories and empirical studies

This section reviews three major theories related to online lifestyle including Lifestyle Theory, Use and Gratification Theory, and Flow Theory. This section also discusses several related empirical studies addressing the characteristics of virtual life.

2.1. Lifestyle Theory

Previous studies [1] indicated that a person becomes a criminal victim as a result of increased opportunities to interact with criminals. Statistics from official surveys of victims confirm that the risk of victimization is connected with one’s personal traits and lifestyle. The opportunities to commit crimes are related to lifestyle because crime events are likely to occur at a special time and space with conditions that particularly attract criminal incidents [2]. For example, [3] indicated that the location of a crime scene is linked to the daily activities and lifestyle of the victim. Online lifestyle is also related to deviant behaviors [4], [5]. Wysocki [6] asserted that online lifestyle is connected to deviant behaviors of Internet use. This is particularly true of those logging in to sex chat rooms, who often exhibit a higher potential for sexually deviant behaviors.

2.2. Use and Gratification Theory

Use and Gratification Theory attempts to provide a more complete description of the audience [7]. This theory illustrates how human beings seek to gratify a need of some sort by using media to maintain a balance in their mental structure. In other words, users of the Internet search for media with different intentions and reasons, and they also understand which type of media effectuates the best gratification for themselves [8]. McQuail [9] observed that social circumstances and mental inclinations affect people’s preferences for media use and their expectations of the benefits provided by the media. That is how the audiences choose and use media. Zhong and Zhang [10] indicated that the satisfaction derived from playing online games formulate the drives and expectations for people to choose the games. Lu [11] illustrated the connection between gratification, motives, and usage behaviors driven from Internet use.

2.3. Flow Theory

Another interesting view that may related to Internet addiction is Flow Theory, which was first proposed by Csikszentmihalyi [12]. The idea behind this theory is that if one completely engages himself or herself in a scenario and devotes 100% attention and mental concentration to any human activity, he or she eliminates all unnecessary sensations. As a result, that person falls into a state of “flow.”

This study investigates the types of tools leading to juvenile indulgence in the Internet with the intent to explore the linkage between personal traits and their online lifestyle. This study labels those who use the Internet to the extent of affecting their mental/physical conditions and daily lives as “Internet dependent,” rather than “Internet addiction” or “netaholic,” which may create a bias toward deviant and contradictory concepts. This study focuses on the relationship between Internet dependence and cybercrime behaviors and the influences of Internet use on deviant and criminal behaviors.

3. Research design and implementation

3.1. Research Framework
This study reviews several related theories and empirical studies of juvenile crime in Taiwan and abroad to understand the lifestyle of Internet usage (including Lifestyle Theory, Use and Gratification Theory, and Flow Theory). The following structure is thus proposed with meticulous and discrete construction after preliminary discussion and analysis (Fig. 1):

3.2. Methodology

3.2.1. Participants

We analyzed 1,644 questionnaires completed by 12 to 17 year-old teenagers from a junior high school, a senior high school, vocational schools, and correctional institutions. Participants included 1,367 regular teenagers and 277 juveniles in correctional institutions. The final effective sample included 1,337 regular teenagers (response rate: 97.6%) and 255 juveniles in correctional institutions (response rate: 90.6%).

3.2.2. Research tools

The main scale of this study is used to analyze two factors: gratification and Internet dependence. Cronbach’s Alpha coefficients were analyzed to test the reliability and effectiveness of the measurements. Each α coefficient must be greater than 0.6 in each scale table. For effectiveness, this study considers items with a factor loading that is greater than 0.4 and an eigenvalue that is greater than 1 to ensure enhanced effectiveness. Table 1 illustrates the reliability of the concepts for research instruments and major topics by factor analysis.

Table 1. Scale table of reliability and factor analysis for online lifestyle

<table>
<thead>
<tr>
<th>Concept</th>
<th>Topic</th>
<th>Eigenvalues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gratification</td>
<td>It satisfies my need for shopping</td>
<td>.123</td>
</tr>
<tr>
<td></td>
<td>It is easy to make friends or chat</td>
<td>.575</td>
</tr>
<tr>
<td></td>
<td>It provides the information I need</td>
<td>.524</td>
</tr>
<tr>
<td></td>
<td>I can say and do whatever I want</td>
<td>.582</td>
</tr>
<tr>
<td></td>
<td>It makes me happy</td>
<td>.612</td>
</tr>
<tr>
<td></td>
<td>Eigenvalues</td>
<td>2.293</td>
</tr>
<tr>
<td></td>
<td>Percentage of total variance explained</td>
<td>57.324</td>
</tr>
<tr>
<td></td>
<td>Internal consistency of Cronbach’s Alpha (α) coefficient</td>
<td>.7454</td>
</tr>
<tr>
<td>Dependence</td>
<td>People have told me more than one time that I spend too much time online.</td>
<td>.643</td>
</tr>
<tr>
<td></td>
<td>I spend more time online than I planned</td>
<td>.665</td>
</tr>
</tbody>
</table>
I need to spend time online to feel satisfied.
I cannot control my impulse of going online.
The first thing on my mind every morning is to use the Internet.
Every time I leave the computer and want to do something else, I can’t help but use the Internet again.
Using the Internet makes me feel energetic, regardless of how tired I am.
When I want to cut down on Internet usage, I feel depressed, down, and grumpy.
I feel myself fidgeting if the Internet doesn’t work.
I have lied to my family, friends, or others to hide how I use the Internet.
I have experienced backaches or other physical conditions as a result of long-term Internet use.
My interaction with my family has dwindled as a result of my Internet usage.
I have cut down my time of doing other leisure activities as a result of my Internet usage.
I have skipped meals or sleep as a result of my Internet usage.

Eigenvalues
Percentage of total variance explained
Internal consistency of Cronbach’s Alpha (α) coefficient

4. Influence of online lifestyle on juvenile cybercrime behaviors

This study also investigated the variables with higher predictability on juvenile cybercrime behaviors using stepwise multiple regression analysis. T-tests were conducted to determine the level of significance for regression coefficients. In addition, to understand the difference between each group, the samples of the present study were categorized as “all teenagers,” “general teenagers,” and “juveniles in correction institutions.” The following three subsections describe the regression results.

4.1. All teenagers

As shown in Table 2, Model 1 refers to the regression model of demography and online lifestyle variables to all juvenile cybercrime behaviors. Based on the values of predictability (highest to the lowest), the order of variables entered into the regression model were “victimization experience,” “dependence,” “gender,” “gratification,” “age,” and “education,” respectively. The results explained 19.6% (R2 =.196) of total variance.

Accordingly, and after controlling for the variable of demography feature and R2, the predictability of online lifestyle is relatively high. Analyzing all the variables in the regression model to understand each individual variable’s influences on juvenile cybercrime behaviors reveals that the two variables of “gratification” and “victimization experiences” produced the highest influences.

4.2. Normal teenagers

As Table 2 shows, Model 2 refers to the regression model of demography and online lifestyle variables to all juvenile cybercrime behaviors in regular teenagers. Based on the values of predictability (highest to
the lowest), the order of variables in the regression model is “victimization experience,” “dependence,” “gender,” and “gratification,” respectively. These results explain 13.4% (R² =.134) of total variance.

4.3. Juveniles in correction institutions

As Table 2 shows, Model 3 refers to the regression model of demography and online lifestyle variables to the cybercrime behaviors of juveniles in correction institutions. Based on the values of predictability (highest to the lowest), the order of variables in the regression model is “victimization experience,” “dependence,” and “gender,” respectively. These results explain 30.9% (R² =.309) of total variance, which is considered high.

Table 2. Explanation model (stepwise regression) of the influence of social control on juvenile cybercrime behaviors in Taiwan

<table>
<thead>
<tr>
<th>Target samples</th>
<th>Cybercrime behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All teens (N= 1592)</td>
</tr>
<tr>
<td>Regression model</td>
<td>Model 1</td>
</tr>
<tr>
<td>Demography</td>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
<td>.218 ***</td>
</tr>
<tr>
<td>Education</td>
<td>-.153 **</td>
</tr>
<tr>
<td>Variables of cyber life</td>
<td>Gratification</td>
</tr>
<tr>
<td>Dependence</td>
<td>.166 ***</td>
</tr>
<tr>
<td>R²</td>
<td>196</td>
</tr>
</tbody>
</table>

Note: The table shows standardized Beta coefficient; *** p < .001; ** p < .01; * p < .05.

5. Conclusions and Recommendations

5.1. Conclusions

The online lifestyle variables of teenagers in Taiwan can serve as good predictors of juvenile cybercrime behaviors. However, the predictability for the three groups of teenagers in this study differs. Previous research focused on the effects of Internet indulgence, and this study also shows that dependence is a powerful predictor of cybercrimes. A person who is more dependent on the Internet is more likely to commit cybercrimes. This study confirms that higher dependence on the Internet leads to more criminal behaviors, which is a relatively new finding.

5.2. Recommendations:

5.2.1. Regulate the lifestyle of teenagers and prevent protect from the risks of cybercrime behaviors. Parents and schools are both liable

Parents and school teachers have the power to correct teenagers engaging in malicious online behavior, and to protect them from the high risks of cybercrimes as a result of poor online lifestyle.
5.2.2. Government authorities should proactively manage Internet usage to impose counter measures against factors that may easily lead teenagers to poor online lifestyle, to reduce potential motives, and to avoid cybercrime behaviors

Juvenile cybercrime behaviors have not received sufficient attention in Taiwanese society, resulting in an escalation of juvenile cybercrimes. The government should be responsible for coordinating and combining available resources to develop an effective network and leverage synergies to address this important issue. Only then will Taiwanese youths be able to live in a safe cyber world.

References


