

**Caught in the Net:
The Medicalization of Internet Addiction among Adolescents**

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Abstract

The global rising Internet penetration rate recently raises the new social issue. The World Health Organization regards the problematic Internet use as a non-substance addiction that might have a negative impact on well-being. In Taiwan society, the prevalence of the problematic Internet use among youth is nearly 20%. The highly rate make educators and medical experts growing consciousness about this issue. Especially the junior and senior high school students are the “digital native” who caught the experts' attention. The education and medical field have different definition toward this phenomena, whether it is a deviant behavior or addiction behavior. This research is a comparison study of the different viewpoints of the risk discourse about the youth excessive use of the Internet both from the educator and medical expert. The research adopts a qualitative content analysis of the publication and survey conducted by the educator and medical experts. The contents imply how experts delineate the difference between the normal and abnormal way of using the Internet. Also, the expert would identify the risk factor of problematic Internet use. This results of this research found that those two disciplines adopt different stand toward youth Internet using issue. Comparing those two different disciplines, on one hand, the educators concern about the deviant behavior that derive from Internet use, such as violent behavior, scam, sexual exploitation. On the other hand, the medical expert focuses the possibility that Internet addiction triggers the depression or other mental illness. In conclusion, the excessive use of the Internet is deemed a lure and causing users get escapism. On this assumption, the teenagers are not having the capacity to resist the lure. However, those assumptions are, usually focus the negative impact of the Internet use, lack of concern about the digital world is part of multi-reality and the peer culture among teenagers.

Key word: mental well-being, Internet addiction, psychiatry, education

1. Introduction

As the Internet access has grown rapidly in the 21st century, the “overuse” of Internet becomes the new rising issue that caught attention, especially the negative effects of Internet addiction affects people health. However, review of literature suggested that how does the cyber behavior be related to the health issue needs to be scrutinize. The term of Internet addiction has been “coined” by the Dr. Goldberg. In 2013, the American Psychiatric Association (APA) lists Internet Gaming Disorder as “Condition for further study”, which means the Internet gaming disorder needed more additional research to be the official disorder (Petry 2015). According to the APA studies, it notes that Internet Gaming Disorder is more prevalent in Asian countries than in North America and Europe.

The World Health Organization (WHO) also focused on topical issues in Internet addiction and held “the Public Health Implications of Excessive Use of the Internet, Computers, Smartphones and Similar Electronic Devices meeting” in Tokyo in 2014. The WHO proposed the Internet addiction as a non-substance/behavior addiction. This behavior not only affect mental health but also physical health. The WHO, in the official document, propose to launch the public health policy immediately. The experts gave the definition of the behavior addiction are usually “characterized by often irresistible urge, impulse or drive to repeatedly engage in an activity (non-substance use) and an inability to reduce or cease this behavior (loss of control) despite serious negative consequences to the person's physical, mental, social and/or financial well-being” (p.5). Although the phenomena of using the Internet excessively are raising the attention by WHO, neither did it be list in the DSM-5 nor in ICD-10. In other words, the Internet addiction is not yet a formal disorder and do not have an official diagnosis gold standard. The diagnosis standard is still in heteroglossia and the golden rule has not been confirmed yet.

In Taiwan, there are more and more concerns about the youth who might be enchanted by the Internet and 3C device. Young (2013) demonstrated that the prevalence of the Internet addiction among adolescents is about 4.6%-4.7%, the grown-ups are around 6%-15%. In additionally, the college students have the higher rate 13%-18.4%. However, as it shows in table 1, the prevalence of Internet addiction in Taiwan is more significant during puberty that shows the rate of 10.8%-17.6%. The masses worry about the negative impacts that caused by the excessive use of the Internet. For instance, the youth obsess about the social media or online gaming. Some experts believe that it would make the children predispose to distress and disturbance, even worse to breach of social norms. And the experts afraid that the Internet becomes a form of escapism. In order to mitigate the effects of Internet addiction among young people, some educators and psychiatrists incepted the association to make prevention and treatment.

[Table1. The Prevalence of Internet Addiction in Taiwan Research]

| Time | Researcher | Scale | Population | Prevalence |
|------|--------------------------|----------------------------------|---|--|
| 2013 | CHEN, Sue-Huei (陳淑惠) | CIAS-R | 1421 college students | 5% |
| 2005 | KO, Chih-Hung (柯志鴻) | CIAS-R | 468 junior and senior high students | 19.8% |
| 2007 | YEN, Ju-Yu (顏如佑) | CIAS-R | 2114 senior high students | 17.9% |
| 2009 | KO, Chih-Hung (柯志鴻) | CIAS-R | 9405 junior and senior high students | 18.8% |
| 2009 | KO, Chih-Hung (柯志鴻) | CIAS-R | 2162 junior high students | 10.8% |
| 2014 | KO, Huei-Chen (柯慧貞) | scale designed by the researcher | 9027 elementary students, junior and senior high students | 4th-6th grade students 9.9% junior high 19.2% senior high 19.4%。 |
| 2015 | WANG, Chih-Hung (王智弘) | CIAS-C (for children) | 250 elementary students | 22.6% |

The aforementioned phenomenon rises the research question. Why does the using of Internet become a social issue? Why does this issue increasingly relate with psychiatry discipline areas? The major purpose of this research is to investigate how the Internet using behavior be medicalized as Internet addiction.

According to the famous medical sociologist Conrad's definition, the medicalization describes the process that the non-medical issue be defined by the medical discipline by degrees. The key aspect of medicalization is a definitional issue. The experts use medical language to describe the problem, probe the problem through medical prospect, or use the medical treatment to intervene. The sociologist's concern about the unintended consequence of medicalization, like the diffusion of medical profession's jurisdiction and the power of social control. At the beginning stage of medicalization, the target issue needs to be given a formal medical term. So does the Internet addiction.

Conrad noted that the medicalization appears in three distinct level, including the conceptual, institutional and interactional level. 1.conceptual level: the problem would be

defined by a medical term but medical treatments were not the necessary requirement. 2. institutional level: the institution may deploy the medical treatment to treating a specific problem. 3. interactional level: the doctors are most immediate to treat the patients and forms the doctor-patient interaction.

The purpose of discussing the phenomenon of medicalization is not to falsify the medical knowledge but also to reveal the social context of the medical knowledge. It is important to clarify the process of medicalization, not only to describe the relationship between the social phenomenon and the medical discipline, but also the unintended consequences caused by the medicalization. For example, fortifying the social control, expanding the profession's jurisdiction, personalizing the social issue, reinforcing the stigma and stereotype. The medical discipline might turn the moral issue into the medical issue, just like the alcoholism and gambling which used to be regard as personal propensity rather than addiction. Once the problem become medicalization, it is under the medical surveillance.

In this study, the Internet addiction is defined on the conceptual level of the medicalization, because it does not have the formal medical term listed in the ICD-10 and DSM-5 but people are became used to phrase it in medical way. Analyzing the medicalization of Internet addiction help us understand how the medical knowledge constituted and what kind of the assumptions that the experts make. Besides, those assumptions contented some social force, like the power of social control. Once the Internet addiction being record into the formal diagnosis standard like the ICD-10 or DSM-5, the level of the medicalization would extend to the institutional level and interactional level and the influence would broaden. So if we can probe the issue about the medicalization of Internet addiction in the beginning stage, we could more likely to trace the process of constitution of professional knowledge.

This research report is divided into four sections. The first section, as aforementioned, introduces the phenomenon of the rising attention toward Internet addiction among youth. The aim of the section is investigating the phenomenon from the medicalization prospect. The second section is the research method. The qualitative method was applied to analyze the document and archive. The third section inspects the current situation of Taiwan Internet addiction research, including the process that forms the medical knowledge and the impact toward parenting. The last section concluded with the ramification that might cause by the medicalization and some sociological reflection.

2. Method

This research focuses on the issue about Internet addiction. Notwithstanding 3C addiction, gaming disorder, social media addiction, smartphone addiction is somehow related with the Internet addiction, and the concept of Internet addiction as referent was applied. This research also applied the textual analysis as research method. The content text including Internet addiction scale, Internet addiction related research, prospectus from Internet addiction association and the popular magazine articles. Those texts pertain to the process of how the knowledge of Internet addiction generate and diffuse to the public notion.

2-1. Scale

The psychometric scale is an important toolkit for those psychiatrist and psychologist. They use the scale to identify the risk factor and demarcate the high-risk group of Internet addiction. There are different kind of scales that experienced by various research group. Laconi (2014) demonstrate the different theory-based scale which derived from pathological gambling, cognitive-behavioral theory, substance dependence. The prevailing scales include Internet Addiction Test (IAT), Compulsive Internet Use Scale (CIUS), and Generalized

Problematic Internet Use Scale 2 (GPIUS 2), Chen Internet Addiction Scale (CIAS). The trait of the scales shows on table [2]. This research focus on the CIAS because this scale was designed by Taiwanese and most of the Taiwanese researchers use the CIAS to evaluate the subjects. In addition, this scale shows good psychometric properties and a high diagnostic accuracy (Laconi 2014: 196). So this research analyze how this scale has been generated and what the sociological overtone in it.

[Table 2. the Prevailing Scales for Internet Addiction]

| Scale | Researcher | Based-theory | Score Standard |
|--------|-----------------------|---|------------------------------|
| IAT | Young, 1998 | pathological gambling | 20item, 5 point Likert scale |
| CIUS | Meerkerk et al., 2009 | pathological gambling, substance dependence | 14item, 5 point Likert scale |
| GPIUS2 | Caplan, 2010 | cognitive-behavioral theory | 29item, 8 point Likert scale |
| CIAS | Chen et al., 2003 | pathological gambling, substance dependence | 26item, 4 point Likert scale |

Data source : Laconi (2014: 192-195)

2-2. Association

The researcher in this study investigate the association of Internet addiction in Taiwan, including Taiwan Association for Prevention and Treatment of Internet Addiction (TAPTIA), and Center for Treatment of Internet Addiction which held by China Asia associated University. On one hand, the TAPTIA inaugurated in 2014 for the purpose of research, prevention, treatment and volunteer training. The member of TAPTIA was comprised of educator, psychiatrist, psychologist, school counselor. The director of TAPTIA, Huei-Chen Ko, who also was an important researcher about the Internet addiction among youth. On the other hand, the Center for Treatment of Internet Addiction (CTIA) which held by China Asia associated University inaugurated in 2012. The function of this center was to promotion of knowledge about Internet addiction. In this study the researcher analyze the prospectus issued by those associations and how did they spread their notion.

2-3. Magazine Article

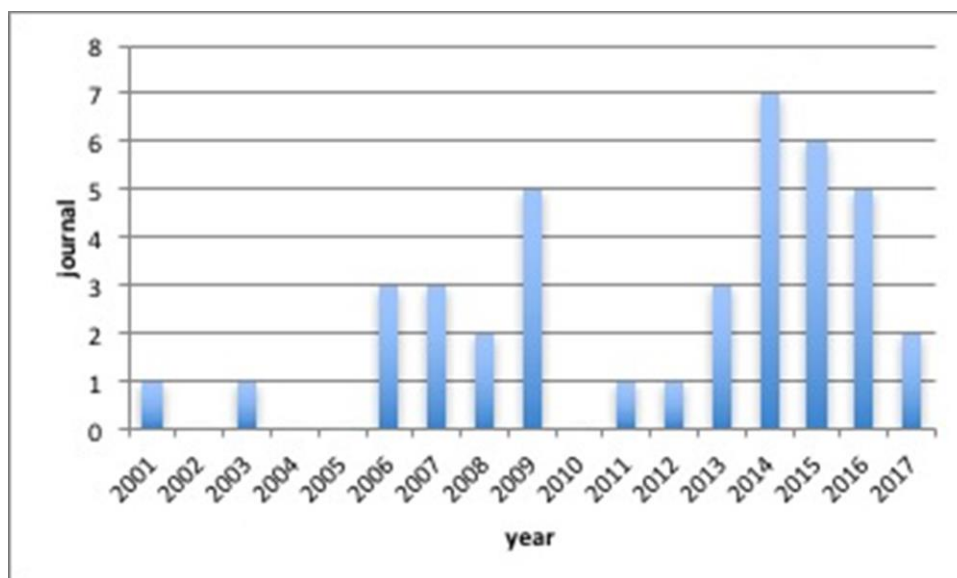
In spite of the professional document, this research inspected the magazine articles that are wide spreading among the parents, elementary school teachers and junior high school teachers. The tile of the magazine is *qīn zǐ tiān xià*(親子天下) which contents are mainly about the suggestion for parenting and educating toward children and adolescents. The topic of the magazine includes emotional education, manner training, study strategy, physical and mental health knowledge. The educators, psychologists and psychiatrists have published some articles about mental health promotion; one of the topics was about Internet addiction. From 2000, there are 54 articles using the keyword “Internet addiction”. The researcher investigates those articles to realized what kind of suggestion that expert would give, and how it forms the idealization discourse of good parenting.

3. Discussion

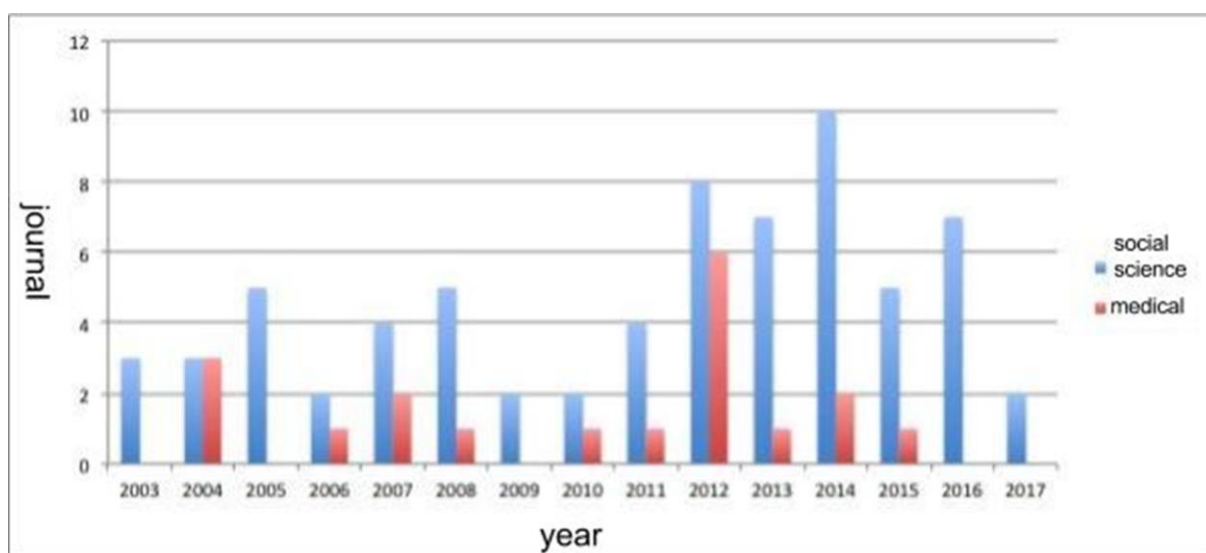
In the following section, this research formalizes the discussion about how the indicators of medicalization shows in the Internet addiction case, including the overview of academic research in Taiwan, the subjects of this issue, and the public discourse. Then the discussion is divided into three parts: overview of academic research in Taiwan, the expansion of risk group, medical discourse diffusion to the everyday world.

3-1. Overview of Academic Research in Taiwan

The CIAS (Chen Internet Addiction Scale), which is designed by the professor Chen, is the most widely used psychometric scale in Taiwan. The scale, based on the gambling addiction theory, contents three psychometric aspects: compulsion, withdrawal, tolerance. Compulsion means the user cannot control the impulse to use Internet. Withdrawal describe the situation that user has strongly unwell feeling when he/she could not use the Internet. Tolerance is about the duration of using Internet is getting longer and longer. The standard to diagnosis the Internet addiction is that user could not control he/she own Internet using behavior, and his/her everyday life function could not run well. The experts state that the Internet addiction may leads to serious mental and health problem, like sleep deprived, eating disorder, depression, negative emotion, or interpersonal problem. The CIAS was applied to conduct the quantitative research by most of academic researchers. After 2011, the amount of the medical journal increase (Figure 1). Besides medical research, there are also plenty of social science research about Internet addiction both from medical discipline and social science (Figure 2).



[Figure 1. Medical Journal about Taiwan Internet Addiction Issue in PubMed]



[Figure 2. Journal about Internet Addiction Issue in Taiwan Journal Database]

In the process of medicalization of Internet addiction, both the medical discipline and the educational psychology discipline co-constructed the academic knowledge of the Internet addiction. Those experts in different disciplines co-work together rather than compete with each other under the association of TAPTIA or the CTIA. Despite of the different theory-based in each discipline, the researchers generally adopt the CIAS. The reason for choosing CIAS as psychometric tool was because of its reliability and validity. Due to widely using CIAS as research tool, most of the academic research are conducted in the quantitative way, few qualitative research conducted to investigate the users interpret their experience about using Internet. And those quantitative researches less take the socioeconomic background and ethnicity issue into accounts (however most of the research focus on gender as variable).

The knowledge about the Internet addiction generated the boundary between the normal/abnormal and healthy/unhealthy Internet using behavior. The behavior which children and teenager using Internet usually be linked to the negative image, like indulging in gaming, getting lost in the virtual relationship, escaping from the reality. Those negative images are associated with non-productive and hedonism, which are opposed to the productive and knowledgeable activity. The dualism judgement toward Internet using behavior makes the

medical and self-surveillance more entrenched. On one hand the medical professions gain the legitimacy of prevention and treatment, on the other hand, the users get more conscious about whether they are using Internet in a “health/normal” way rather than “unhealthy/abnormal” way. Anyone who is using the Internet has the chance to be in the risk group of Internet addiction.

3-2. The Expansion of Risk Group

The Internet addiction research focused on college student Internet using behavior at the beginning. The pioneer of the Internet addiction research was conducted by the Prof. Chou Chien (周倩) (2001) in National Chiao-Tung University. She interviewed 83 college students asking the question about the reason why they use Internet and the impact about everyday life since using Internet. Prof. Chou use the qualitative way to conduct the research. Besides Prof. Chou, Prof. Chen Sue-Huei (陳淑惠) (2003) use the quantitative way to survey 1421 college students by questionnaire, then she designed the CIAS that was wide spreading in Taiwan academy.

According to the research in 2012, the prevalence of junior and senior high school students in Taiwan is estimated between 9.9%-19.8%. The elementary school students are even up to 22.6% (see table 1). The newspaper gave this phenomenon a terrifying title that “20% students Internet addiction the most serious in worldwide”. And the reporter excerpts the researcher’s estimation, following this growing tendency; the prevalence of Internet addiction in Taiwan might surpass the Korean in the few years. Prof. Wang Chih-Hung (王智弘) suggested the 2nd grade in elementary school is the critical point for Internet addiction. The grade is positive relevant with the Internet addiction high-risk rate. Prof. Wang’s research showed the 1st grades prevalence is 3.03%, then 2nd grade’s prevalence rising drastically up to 16.22%.

As those researches aforementioned, it shows that the risk group of Internet addiction is becoming broader and younger. This tendency is related to the prevalence of the web accessibility and 3C devices. Many children have their own cell phone when they are in the elementary school. The teenager and children are becoming the main subject of the Internet addiction issue. Interestingly, it is natural phoneme that the expansion direction is not toward the older group, so as the grown-up. Whether it is related to the assumption that youngsters do not develop the self-control ability completely needs further investigation.

3-3. Medical Discourse Diffusion to the Everyday World

Despite the academic publication, some expert also writes articles for the purpose of public health promotion. The parents are one of the important target reader that the experts want to deliver the health notion to. In the research, take the magazine *qīn zǐ tiān xià* (親子天下) as an example, there are several article about the Internet addiction which are written by the psychiatrist, psychologist or educator. One of expert Prof, Zhou shared her experience about how she “rescue” her child from being Internet addiction. She recalled one of a summer vacation her son played video game for non-stop 7 hours. This experience was really terrifying her. She said “I do not want my child to be gaming consumer, I want him to be a gaming producer.” So she hired her college student to teach her son about the computer coding. Since that, her son focus on how to code rather than play video game. Hiring a tutor

to teach children is a way, accompanying with children to doing something fun is another way.

Some articles suggested that children who get into Internet addiction are because of lacking parent's attention. The solution for this situation is make the suggestion that playing with children or find some activity they will be more interested, such as going to the camp, getting outdoor activity, reading, traveling. Besides proposing the solution, the articles also recommended the "should not" list. For instance, parents should not let the "3C nanny" take care of children, which means parent do not give enough caring to children and let them keep using 3C device alone. Another suggestion is parents should not let children use 3C device when they are too young. According to those suggestion, most of the experts assume that the Internet and 3C device as "bad thing" that should have avoided. And expert advocate parents should accompany with children as much as they can. Adversely, parents would be blame if they do not try to turn their children's attention away from the Internet. This situation would be deemed as family dysfunction.

Many researches assume that the dysfunctional family is one of the risk factor that related to children or teenager who has Internet addiction. Those discourses might fortify the ideal type of the intensive parenting, especially the concerted cultivation way, which parents took a plenty of time to "cultivate" their children. An American sociologist Annette Lareau (2003) divided the ideal type of parenting into two categories of. One is "concerted cultivation", parents set up a lot of learning plan for their children and would accompany children to fulfill those task. Another is "natural growth", parents give the full autonomy to children to do what they want to do.

Those public articles encourage parents spending more time with children or schedule some activity in order to turn children's attention away from the Internet. But all this effort needs socioeconomic base.

4. Conclusion

The last section concluded the aspect of the Internet addiction of medicalization and the unintended consequence. The aspect of the Internet addiction of medicalization included interdisciplinary constitutes knowledge, the expansion of risk group, extended to the everyday world.

4-1. Interdisciplinary Constitute Knowledge

In the process of medicalization of Internet addiction, not only the medical discipline but also the educational, psychology discipline co-constructed the academic knowledge of the Internet addiction. Those experts in different disciplines co-work together rather than compete with each other under the association of TAPTIA or the CTIA. Despite of the different theory-based in each discipline, the researchers generally adopt the CIAS which scale was developed by the psychological professor Chen Sue-Huei. The reason why choose CIAS as psychometric tool is because of its reliability and validity. Due to widely using CIAS as research tool, most of the academic research are conducted in the quantitative way, few qualitative research to investigate the how the users interpret their experience about using Internet. And those quantitative researches are less take the socioeconomic background and ethnicity issue into accounts (however most of the research focus on gender as variable).

4-2. The Expansion of Risk Group

One of the traits of the medicalization is expansion of the risk subjects who meets the diagnosis standard. The range of the subjects of the Internet addiction research keeps

expanding. At the beginning, the Internet addiction research focused on college student's Internet using behavior. Then the subjects turn to senior high and junior high school students. The risk of Internet addiction among elementary school students becomes a new direction for researchers. The trends indicated that the risk group of Internet addiction is becoming broader and younger. This tendency is related to the prevalence of the web accessibility and 3C devices. Many children have their own cell phone when they are at elementary school. So the teenager and children is becoming the main subject of the Internet addiction issue. Interestingly, we could think about why the expansion direction is not toward the older group, so as the grown-up. Whether it is related to the assumption that youngsters do not develop the self-control ability completely needs further investigation.

4-3. Medical Discourse Diffusion to the Everyday World

Another trait of medicalization is the diffusion of the medical discourse, which means the medical concept about the problem permeated the everyday world. In the Internet addiction case, the medical concept of the Internet addiction spread across the media, education, and family, teenager group. The Internet addiction awareness is prevalent among schools and parents. The masses could easily access the medical knowledge from media or Internet source. And it also has some free scale about the risk factor of Internet addiction on the website for self-check. Even though the Internet addiction is not yet an official disorder, through the promotion of the appropriate Internet using, the masses knows about the bad influence of the Internet addiction. It might be worth exploring further whether this relates the expansion of professional jurisdiction or medical authority.

Those discourses of Internet addiction might cause some unintended consequence. Three ramifications were categorized in this study: personalizing the social issue, reinforcing the medical surveillance and self-surveillance, fortify the ideal type of the intensive parenting.

4-4. Personalizing the Social Issue

Many researches tend to explain the Internet addiction problem by personal choice prospect. The prospect assumed children and teenager as immature youngster who do not understand the right way to resist temptation and relieve the stress. The suggestion for the youngster usually neglects the social context that the users situated and how the users conceive of their behavior, how they interpret the meaning of what they are doing.

4-5. Reinforcing the Medical Surveillance and Self-surveillance

The knowledge about the Internet addiction generated the boundary between the normal/abnormal or healthy/unhealthy Internet using behavior. The behavior that the teenager using Internet usually be linked to the negative image, like indulging in gaming, getting lost in the virtual relationship, escaping from the reality. Those negative images are associated with non-productive and hedonism, which are opposed to the productive and knowledgeable activity. So the dualism judgement toward Internet using behavior make the medical and self-surveillance more entrench. On one hand the medical professions gain the legitimacy of prevention and treatment, on the other hand, the users get more conscious about whether they are using Internet in a "health/normal" way rather than "unhealthy/abnormal" way. Anyone who is using the Internet has the chance to be in the risk group of Internet addiction.

4-6. Fortify the Ideal Type of the Intensive Parenting

Many researches assume the dysfunctional family is one of the risk factor that related to children or teenager who has Internet addiction. Those discourses might fortify the ideal type of the intensive parenting, especially the concerted cultivation way, which parents took a plenty of time to "cultivate" their children. This premise encourages parents spending more

time with children or schedules some activity to turn their attention away from the Internet. But all this activity needs socioeconomic base.

The medicalization of Internet addiction appears in different social aspect. The interdisciplinary co-constructed the academic knowledge about the Internet addition. According to the academic discipline knowledge, the evaluation of risk group which is getting expanded down to younger group. That academic knowledge permeates into the everyday life language and influence the way that parents and educators think about Internet addiction. After those process, the medicalization of Internet addiction leads to some unintended consequences. The academic knowledge provides the base for personalizing the social issue, reinforcing the medical surveillance and self-surveillance. Even outside of academic field, the academic knowledge would fortify the ideal type of the intensive parenting in the everyday life practice.

What can we rethink about the problem of whether the Internet addiction is a medical disorder or a kind of moral panic? In other words, it may be a presentation that turns “badness” to “sickness”. If we only consider the Internet using behavior through the prospect of medicalization solely, we would fail to consider the user’s heterogeneous experience, cultural context, and socioeconomic background. The overlook might cause the bias that only concentrate on the negative impact of the Internet using.

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