



AKADÉMIAI KIADÓ

Journal of Behavioral Addictions

9 (2020) 4, 898–902

DOI:  
10.1556/2006.2020.00095  
© 2020 The Author(s)

## COMMENTARY



# Prerequisites for stakeholder framework: Consumer advocacy and health protection in the digital industry

Commentary on: Problematic risk-taking  
involving emerging technologies: A stakeholder  
framework to minimize harms  
(Swanton et al., 2019)

HAE KOOK LEE\*

Department of Psychiatry, Uijeongbu St. Mary's Hospital, College of Medicine,  
The Catholic University of Korea, 222 Banpo-daero, Seocho-gu, Seoul 06591, South Korea

Received: August 23, 2020 • Revised manuscript received: October 25, 2020 • Accepted: October 29, 2020  
Published online: December 16, 2020

### ABSTRACT

The World Health Organization (WHO) included gaming disorders in International Classification of Disease-11th (ICD-11) on May 25, 2019. Since then, some academics and the gaming industry have continued to argue over the health system's response to online addictive behaviors. Under these circumstances, a framework involving groups representing various interests is needed to derive a reasonable solution to the dispute over the inclusion of gaming disorders in ICD-11. For this framework to work effectively, it is necessary to agree on consistent and advanced research findings that harms related to the excessive use of digital devices or content continue to occur empirically all over the world and that addictive use constitutes a primary addictive disorder. The problematic risk taking involving emerging technologies may include not only health risks from addictive use, but also more general harms associated with digital ethics and norms such as privacy and transparent money transactions. An understanding of a public health model of addiction is required to reduce harms associated with online addictive behavior that exist behind risk taking. Such harms are also mediated by excessive use, excessive money spending, and exposure to addictive content such as violence and pornography. Major stakeholders and their roles can be derived more effectively based on these conceptual models and parameters of harms. In conclusion, the context of the proposed stakeholder framework should be further optimized on the basis of two principles: (1) advocating consumer rights as a general and standard approach to digital products; and (2) protecting consumers' health from harms related to addictive behaviors.

### KEYWORDS

advocacy, consumer, health right, public health model

### INTRODUCTION

On May 25, 2019, the World Health Organization (WHO) officially included gaming disorder (GD) in the latest (eleventh) revision of the International Classification of Diseases (ICD-11) (WHO, 2019). Since then, the game industry has raised a strong opposition that the decision will have a negative impact on healthy gamers and the overall game industry (European Games Developer Foundation, 2018). In fact, the number of such complaints has increased since 2014 when the WHO formed consultation groups and began to take public health measures to prevent related harms (WHO, 2015).

\*Corresponding author.  
E-mail: [nplhk@catholic.ac.kr](mailto:nplhk@catholic.ac.kr)



Researchers in other areas, including some psychologists and information and communication technologists (ICTs), have raised questions about the harm and disease concept associated with excessive use of games through research papers in public health and medical fields. The game industry has shown a pattern of arbitrarily selecting these objections and using them as a basis for denying the existence of harmful effects of excessive gaming (King, 2018). Digital industry-friendly media has repeated the pattern of re-spreading these game companies' claims through reports (Lee, Choo, & Lee, 2017). Under these circumstances, it is very important to propose a stakeholder framework that includes the digital device and content industry, mental behavioral health professionals, ICT professionals, and consumers to reduce harms associated with problematic risk taking involving emerging technologies (Swanton, Blaszczynski, Forlini, Starcevic, & Gainsbury, 2019).

The authors described interpretation and recognition of the controversy over the existence and definition of harms related to excessive use of digital devices or contents, and proposed the concept and definition of problematic risk-taking behavior related to emerging digital technologies. Further, they proposed a stakeholder framework to minimize harms related to problematic risk-taking behaviors. The purpose of this commentary paper is to enrich the perspective of the paper by providing different viewpoints on the framework presented by the authors.

## WHY DON'T WE START A DISCUSSION BASED ON ADVANCED AND ACCMULATED RESEARCH?

Regarding diagnosis of problematic online behaviors, the authors argue that the criteria and threshold for defining them are ambiguous and that the diagnosis process itself is subjective, especially in the case of adolescents, lacking objectivity because it can be influenced by intentions of other information reporters such as parents. Unlike the criteria for Internet gaming disorder diagnosis proposed in DSM-5 (APA, 2013), ICD (WHO, 2019) has reduced the ambiguity of diagnosis threshold as much as possible by making serious and significant functional impairment a necessary condition for the diagnosis besides meeting essential diagnostic features (Billieux et al., 2017). In addition, essential features proposed in the ICD-11 Gaming Disorder Diagnosis Guidelines are relevant and reliable to disordered gamer with severe functional impairment (Jo et al., 2019). Therefore, it is believed that diagnosis guidelines for gaming disorder in ICD-11 can address criticism of the ambiguity of the diagnosis.

Unlike physical disease that are diagnosed based on biological laboratory findings, diagnosis of mental and behavioral disorders based on observed mental and behavioral activities and characteristics can be subjective. However, the diagnosis in a clinical setting is not based on mechanical interpretation of the wording of diagnostic

guidelines, but on a comprehensive judgment of a well-trained clinician on key concepts and clinical symptoms of the disorder (Pies, 2007). This is true not only for gaming disorders, but also for major psychiatric disorders such as depression and schizophrenia. Therefore, it is inappropriate to raise such a question because it may be a question of objectivity in diagnosing the mental behavioral health area as a whole.

The authors suggest that whether online problematic behavior is in line with primary disorder is currently unclear or that it is secondary to other co-existing mental problems. However, studies have shown that dopamine release abnormalities and related structural abnormalities occur in reward circuits among people with games or internet addiction since the late 1900's (Kim et al., 2011; Koeppe et al., 1998; Qin et al., 2020). These findings support that addictive use of digital devices or contents can be a primary addictive disorder. In addition, all addictions including gambling and substance use disorders and online problematic behaviors such as internet addiction commonly have coexisting psychiatric disorders due to the nature of addictive disorders (González-Bueso et al., 2018; Hayley, Stough, & Downey, 2017; Sundqvist & Rosendahl, 2019). Therefore, it is inappropriate to argue that a gaming disorder is not a primary mental disorder, citing the tendency to coexist often with other psychiatric disorder. Rather, co-existing psychiatric disorders are important factors to consider when establishing a treatment strategy for gaming disorders (Rumpf et al., 2018). In conclusion, the discussion about the development of multidisciplinary stakeholders to address harms associated with problematic risk-taking behaviors involving emerging technologies needs to begin with a consensus based on advanced research results accumulated in recent years.

## FROM THE PERSPECTIVE OF THE BALANCE BETWEEN "INDUSTRIAL INTERESTS" AND "SOCIETAL RESPONSIBILITIES"

The authors mention balances between individual civil liberties with societal responsibilities and institutional duty of care. If the problematic risk-taking behavior involving emerging technologies is simply viewed as a matter of individual's freedom and right, it is impossible to see the profit-seeking behavior of industries that influence such individual's decision making.

Various digital industries including the game industry, like alcohol and gambling industries, are striving to increase profit (King, 2018). For example, the game industry can make individuals use their products more often by emphasizing various addictive factors such as gambling and sexually provocative games (Rosenkranz, Müller, Dreier, Beutel, & Wöfling, 2017; Wardle, 2019). In addition, the game industry has recently tried to maximize profits from game sales by spreading a false message that WHO is holding a joint campaign called "TakeApartTogether" with the game



industry to encourage social distancing to cope with the COVID-19 pandemic (Balhara & Chandniok, 2020).

Therefore, it is the economic profit-seeking behavior of the industry that hides behind individual civil liberties that must balance social responsibility for health protection. In addition, in Korea, the shutdown policy which blocks online game access at midnight for teenagers under the age of 16 has been judged to be compatible with the constitutional law because it protects vulnerable individuals' health rights rather than limiting their freedom and right to pursue happiness (Lee et al., 2017).

## MORE FOCUS SHOULD BE PLACED ON WHAT CAUSES ADDICTIVE USE AND RELATED HARMS

The authors use the term “problematic risk-taking behavior” as a way to describe the behavior of individuals who use online content that makes them experience related harmful consequences. However, behind such risk-taking behavior is a neurobiological background of addiction such as pursuit of pleasure or reward. In addition, given the nature of online content that everyone uses universally, subjects can be divided into a normal group which has a large number of universal users who often experience minor harm and an addiction group with severe functional impairment depending on the extent of the associated harm experienced. Therefore, the definition for problematic online behavior proposed by the authors is not different from the problem continuum concept used in the field of addiction medicine.

When dividing problem groups and non-problem groups depending on the experience of harm, it is important to note that, unlike substance addiction, online addiction has no acute intoxication effect, although excessive use of online contents among younger age can be associated with harmful effects of mental behavioral health after a certain period of time (Lee & Lee, 2017). Thus, a more sensitive approach is required to judging harms associated with excessive use of online contents.

The authors focused on behavioral and decision-making aspects of problematic risk-taking behavior involving emerging technologies in this paper. This approach is useful given that both the form and content of digital items change rapidly and that addictive elements can converge. In addition, personal vulnerabilities and characteristics that lead to these risk-taking behaviors are also important. However, intermediating factors that affect decision-making and related harms such as excessive use, the use of money, and addictive elements of contents should also be considered as important factors (Lee, Kim, & Lee, 2019).

Various contents in the internet can make people stay for longer and spend money easily or expose people to harmful materials (Dreier et al., 2017; Macey & Hamari, 2019), thus increasing the problematic risk-taking behavior universally regardless of individual characteristics.

## ADVOCACY CONSUMER FOR BALANCING AND MODERATION: CONDITIONS OF SUSTAINABLE DIGITAL TECHNOLOGY

The following are comments on the stakeholder framework that the authors are presenting.

First, the framework does not include consumer advocacy or related organizations that should be highlighted as independent domains. Digital technology is the product of high technical activity. Moreover, the digital industry is supported by a government's economic policies that carry out tremendous marketing. Under these circumstances, general consumers have difficulty in identifying health risks associated with digital technology and protecting their own rights. Thus, there has been policy development and advocacy movements by non-government organizations to protect consumers from harms associated with excessive use of digital media and other contents (CMA, 2015; Center for Digital Democracy (CDD) website July 13, 2020; Common sense media website July 13, 2020). It is difficult to establish a legal regulatory policy because a digital content is basically a legal content that is highly accessible to everyone. Some game companies also post warning messages about excessive use for social responsibility. However, this is not enough (Yousafzai, Hussain, & Griffiths, 2014; Griffiths & Pontes, 2019).

In other areas of addiction such as alcohol, tobacco, and gambling addictions, consumer advocacy and solidarity of global and regional organizational networks are known to play an important role in developing various policies and improving public awareness (David, Thomas, Randle, & Daube, 2020; Mosher, 2009; Schmitz, 2016). Because these digital technologies are developed, spread, and distributed at a global enterprise level, it is too limited to see consumer advocacy as just a part of community-based perspective. Thus, advocating consumers in the digital industry is important by ensuring a separate independent domain within the stakeholder framework.

Second, special consideration is needed for children and adolescents in schools. In other words, functions of norms, rules, and capacity support for healthy and safe use of digital technology in school life (such as classes, assignments and communication) should be emphasized as a separate area of the stakeholder framework. Digital content is an entertainment platform used by adults, children, and adolescents at the same time. However, the likelihood and seriousness of harms to adults are different from those to adolescents. Furthermore, while adults have no restrictions, children and adolescents need a variety of restrictions regarding the access to contents. Therefore, more specific prevention strategies should be considered than a general consumer protection principle.

Third, regarding the role and responsibility of researchers, conflicts of interest and research ethics should be thoroughly managed. Addiction-related industries such as alcohol and tobacco industries constantly exert influence on



research results to dilute the harmfulness and addictiveness associated with alcohol and tobacco use (McCambridge & Mialon, 2018). Digital contents such as games cannot be free from this context. Of course, the scope and utilization of digital contents are very wide. There is controversy over harms associated with digital technologies themselves. However, the digital industry is likely to be tempted to influence research results to verify the safety and benefits of its products. Researchers at institutions that receive funding from the game industry sometimes make arguments to serve the interest of the game industry (Lee et al., 2017).

## CONCLUSION

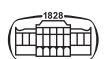
The digital industry will develop rapidly and affect various daily lives. The digital industry will allow consumers to stay online longer, more often, and spend more money for more profits. In the process, consumers will unintentionally engage in problematic behavior and experience related harms. Due to the nature of online behavior, boundaries between problems and non-problems are often ambiguous. They cannot be immediately identified. To reduce related harms and provide services to prevent and treat certain addictions, policies for providing accurate information on harms and excessive marketing restrictions are needed. Therefore, setting a stakeholder framework is important to meet the following missions: (1) to ensure healthy and safe use of digital products; and (2) to prevent and treat addictive use. The stakeholder framework suggested by the authors needs to be optimized in the future to meet these missions.

*Funding sources:* No financial support was received for this study.

*Conflict of interest:* The author declares no conflict of interest.

## REFERENCES

- American Psychiatric Association [APA] (2013). *Diagnostic and statistical manual of mental disorders (DSM-5<sup>®</sup>)*. American Psychiatric Pub.
- Balhara, Y. P. S., & Chandiok, K. (2020). Can# Play-OurpartTogether help prevent miscommunication? *Asian Journal of Psychiatry*, 52, 102123. <https://doi.org/10.1016/j.ajp.2020.102123>.
- Billieux, J., King, D. L., Higuchi, S., Achab, S., Bowden-Jones, H., Hao, W., et al. (2017). Functional impairment matters in the screening and diagnosis of gaming disorder: Commentary on: Scholars' open debate paper on the World Health Organization ICD-11 Gaming Disorder proposal (Aarseth et al.). *Journal of Behavioral Addictions*, 6(3), 285–289. <https://doi.org/10.1556/2006.6.2017.036>.
- Center for Digital Democracy [CDD]. Retrieved July 13, 2020, from <https://www.democraticmedia.org/about>.
- Common sense media. Retrieved July 13, 2020, from <https://www.common sense media.org/about-us/our-mission>.
- Competition & Markets Authority [CMA]. (2015). *Unfair contract terms guidance*. Retrieved July 13, 2020, from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/398206/CMA37con\\_Unfair\\_contract\\_terms\\_guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/398206/CMA37con_Unfair_contract_terms_guidance.pdf).
- David, J. L., Thomas, S. L., Randle, M., & Daube, M. (2020). A public health advocacy approach for preventing and reducing gambling related harm. *Australian and New Zealand Journal of Public Health*, 44(1), 14–19. <https://doi.org/10.1111/1753-6405.12949>.
- Dreier, M., Wölfling, K., Duven, E., Giral, S., Beutel, M. E., & Müller, K. W. (2017). Free-to-play: About addicted whales, at risk dolphins and healthy minnows. Monetization design and internet gaming disorder. *Addictive Behaviors*, 64, 328–333. <https://doi.org/10.1016/j.addbeh.2016.03.008>.
- European Games Developer Foundation (2018). *Statement on WHO ICD-11 list and the inclusion of gaming* Available at: <http://www.egdf.eu/wp-content/uploads/2018/06/Industry-Statement-on-18-June-WHO-ICD-11.pdf>.
- González-Bueso, V., Santamaría, J. J., Fernández, D., Merino, L., Montero, E., & Ribas, J. (2018). Association between internet gaming disorder or pathological video-game use and comorbid psychopathology: A comprehensive review. *International Journal of Environmental Research and Public Health*, 15(4), 668. <https://doi.org/10.3390/ijerph15040668>.
- Griffiths, M. D., & Pontes, H. M. (2019). The future of gaming disorder research and player protection: What role should the video gaming industry and researchers play? *International Journal of Mental Health and Addiction*, 1–7. <https://doi.org/10.1007/s11469-019-00110-4>.
- Hayley, A. C., Stough, C., & Downey, L. A. (2017). DSM-5 cannabis use disorder, substance use and DSM-5 specific substance-use disorders: Evaluating comorbidity in a population-based sample. *European Neuropsychopharmacology*, 27(8), 732–743. <https://doi.org/10.1016/j.euroneuro.2017.06.004>.
- Jo, Y. S., Bhang, S. Y., Choi, J. S., Lee, H. K., Lee, S. Y., & Kweon, Y. S. (2019). Clinical characteristics of diagnosis for internet gaming disorder: Comparison of DSM-5 IGD and ICD-11 GD diagnosis. *Journal of Clinical Medicine*, 8(7), 945. <https://doi.org/10.3390/jcm8070945>.
- Kim, S. H., Baik, S. H., Park, C. S., Kim, S. J., Choi, S. W., & Kim, S. E. (2011). Reduced striatal dopamine D2 receptors in people with Internet addiction. *NeuroReport*, 22(8), 407–411. <https://doi.org/10.1097/WNR.0b013e328346e16e>.
- King, D. L. (2018). Gaming industry response consortium comment on the global gaming industry's statement on ICD-11 gaming disorder: A corporate strategy to disregard harm and deflect social responsibility. *Addiction*, 113, 2145–2146. <https://doi.org/10.1111/add.14388>.
- Koepp, M. J., Gunn, R. N., Lawrence, A. D., Cunningham, V. J., Dagher, A., Jones, T., et al. (1998). Evidence for striatal dopamine release during a video game. *Nature*, 393(6682), 266–268. <https://doi.org/10.1038/30498>.
- Lee, S. Y., Choo, H., & Lee, H. K. (2017). Balancing between prejudice and fact for gaming disorder: Does the existence of alcohol use disorder stigmatize healthy drinkers or impede scientific research? Commentary on “Scholars’ open debate



- paper on the World Health Organization ICD-11 gaming disorder proposal". *Journal of Behavioral Addictions*, 6(3), 302–305. <https://doi.org/10.1556/2006.6.2017.047>.
- Lee, S. Y., Kim, M. S., & Lee, H. K. (2019). Prevention strategies and interventions for internet use disorders due to addictive behaviors based on an integrative conceptual model. *Current Addiction Reports*, 6(3), 303–312. <https://doi.org/10.1007/s40429-019-00265-z>.
- Lee, B. H., & Lee, H. K. (2017). Longitudinal study shows that addictive Internet use during adolescence was associated with heavy drinking and smoking cigarettes in early adulthood. *Acta Paediatrica*, 106(3), 497–502. <https://doi.org/10.1111/apa.13706>.
- Macey, J., & Hamari, J. (2019). eSports, skins and loot boxes: Participants, practices and problematic behaviour associated with emergent forms of gambling. *New Media & Society*, 21(1), 20–41. <https://doi.org/10.1177/1461444818786216>.
- McCambridge, J., & Mialon, M. (2018). Alcohol industry involvement in science: A systematic review of the perspectives of the alcohol research community. *Drug and Alcohol Review*, 37(5), 565–579. <https://doi.org/10.1111/dar.12826>.
- Mosher, J. F. (2009). Litigation and alcohol policy: Lessons from the US tobacco wars. *Addiction*, 104(suppl 1), 27–33. <https://doi.org/10.1111/j.1360-0443.2008.02432.x>.
- Pies, R. (2007). The historical roots of the “bipolar spectrum”: Did Aristotle anticipate Kraepelin’s broad concept of manic-depression? *Journal of Affective Disorders*, 100(1–3), 7–11. <https://doi.org/10.1016/j.jad.2006.08.034>.
- Qin, K., Zhang, F., Chen, T., Li, L., Li, W., Suo, X., et al. (2020). Shared gray matter alterations in individuals with diverse behavioral addictions: A voxel-wise meta-analysis. *Journal of Behavioral Addictions*, 9(1), 44–57. <https://doi.org/10.1556/2006.2020.00006>.
- Rosenkranz, T., Müller, K. W., Dreier, M., Beutel, M. E., & Wölfling, K. (2017). Addictive potential of internet applications and differential correlates of problematic use in internet gamers versus generalized internet users in a representative sample of adolescents. *European Addiction Research*, 23(3), 148–156. <https://doi.org/10.1159/000475984>.
- Rumpf, H. J., Achab, S., Billieux, J., Bowden-Jones, H., Carragher, N., Demetrovics, Z., et al. (2018). Including gaming disorder in the ICD-11: The need to do so from a clinical and public health perspective: Commentary on: A weak scientific basis for gaming disorder: Let us err on the side of caution (van Rooij et al., 2018). *Journal of Behavioral Addictions*, 7(3), 556–561. <https://doi.org/10.1556/2006.7>.
- Schmitz, H. P. (2016). The global health network on alcohol control: Successes and limits of evidence-based advocacy. *Health Policy and Planning*, 31(suppl\_1), i87–i97. <https://doi.org/10.1093/heapol/czu064>.
- Sundqvist, K., & Rosendahl, I. (2019). Problem gambling and psychiatric comorbidity—risk and temporal Sequencing among women and men: Results from the Swelogs case-control study. *Journal of Gambling Studies*, 35(3), 757–771. <https://doi.org/10.1007/s10899-019-09851-2>.
- Swanton, T. B., Blaszczynski, A., Forlini, C., Starcevic, V., & Gainsbury, S. M. (2019). Problematic risk-taking involving emerging technologies: A stakeholder framework to minimize harms. *Journal of Behavioral Addictions*, 1–7. <https://doi.org/10.1556/2006.8.2019.52>.
- Wardle, H. (2019). The same or different? Convergence of skin gambling and other gambling among children. *Journal of Gambling Studies*, 35(4), 1109–1125. <https://doi.org/10.1007/s10899-019-09840-5>.
- World Health Organization [WHO] (2015). *Public health implications of excessive use of the internet, computers, smartphones and similar electronic devices: Meeting report*, Main Meeting Hall, Foundation for Promotion of Cancer Research, National Cancer Research Centre, Tokyo, Japan, 27–29 August 2014. World Health Organization.
- World Health Organization [WHO] (2019). *International classification of diseases* (11th ed.). Geneva: World Health Organization.
- Yousafzai, S., Hussain, Z., & Griffiths, M. (2014). Social responsibility in online video gaming: What should the video-game industry do? *Addiction Research and Theory*, 22(3), 181–185. <https://doi.org/10.3109/16066359.2013.812203>.

