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WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal provide dedicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

E ADDICTION AND DELINQUENCY

AUTHORED BY - MARY JYOTHI JOSEPH¹

Abstract

E- Addiction has become disturbingly pervasive, with major side effects. It greatly impacts adolescents, whose brain progression is notably affected by this addiction. Children and young adults who are at a critical stage of growth; experience retarded growth due to this addiction, with side effects comparable to those of substance abusers. This online addiction has escalated beyond safe levels, exerting an unhealthy influence on the younger generation. Furthermore, it is associated with an increase in criminal tendencies among youth, particularly accelerating property crimes. The COVID-19 lockdown has exacerbated the negative impact on the growth of online addiction. Psychological and behavioural interventions by health professionals, family and close associates are essential in mitigating its side effects.

Key words: Internet Addiction, E Gaming, Young Offenders, Criminal Tendency, Mitigating Factors

Introduction

The proliferation of electronic games has generated both apprehensions and optimism concerning their potential impact on young individuals². Electronic gaming machines are increasingly incorporating skill-based components to appeal to a diverse consumer base by offering varied gaming experiences³. There is a common belief that electronic gaming is the most 'addictive' type of gambling, as it is thought to play a larger role in the emergence of problem gambling compared to other gambling activities. As a result, electronic gaming machines have been compared to the 'crack-cocaine' of gambling⁴. While countless individuals play computer games for fun or relaxation, a distinct group of exceptionally talented players

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² Andrew K. Przybylski, *Electronic Gaming and Psychosocial Adjustment*, 134 PEDIATRICS e716 (2014), <https://doi.org/10.1542/peds.2013-4021>.

³ Paul Delfabbro, Daniel King & Sally M. Gainsbury, *Understanding Gambling and Gaming Skill and Its Implications for the Convergence of Gaming with Electronic Gaming Machines*, 20 INTERNATIONAL GAMBLING STUDIES 171 (2020), <https://doi.org/10.1080/14459795.2019.1662824>.

⁴ Nicki Dowling, David Smith & Trang Thomas, *Electronic Gaming Machines: Are They the 'Crack-Cocaine' of Gambling?* 100 ADDICTION 33 (2005), <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1360-0443.2005.00962.x>. (last visited July 19, 2025)

seeks to make a career in what is referred to as "e-sports"⁵. A nonprofit organization, Centre for Investigative Reporting, has discovered 173 groups on Steam, a major online gaming platform, that glorify school shootings. These groups participate in conversations about possible targets for future school shooters⁶. In the domain of cyberpsychology, a variety of terms have been utilized to characterize this behaviour, including pathological video game use, problematic gaming, online gaming addiction, and excessive computer game playing. Despite the diversity in terminology, the attributes and consequences of this behaviour remain consistent. Individuals who engage in excessive gaming have reported experiencing significant negative impacts on their personal relationships and commitments related to work or school, as well as disturbances in sleep and diet, financial losses, irritability when not gaming, symptoms of craving, and an inability to reduce or control their gaming habits⁷.

E- Addiction

The concept of internet addiction was initially introduced in 1995 by Ivan Goldberg, a psychiatrist based in New York, who humorously mentioned it to a group of fellow psychiatrists with whom he communicated online. This notion received formal acknowledgment when Kimberly Young presented it at the American Psychological Association's annual conference in 1996⁸. The concept of gaming addiction emerged in the early 1990s and has recently garnered significant attention from both mainstream media and scholarly research, especially concerning gaming through the Internet. While some of this heightened interest has focused on the link between gaming and aggressive behaviour, a substantial amount has been directed at the serious effects of Internet gaming on teenagers. These effects include a variety of problems, such as social withdrawal from friends and family, nutritional imbalances, poor personal hygiene, negative impacts on academic performance and relationships and even suicidal and homicidal tendencies⁹. To be classified as a genuine addiction, including behavioural addiction, it must encompass more than mere frequent

⁵ Dan L. Burk, *Owning E-Sports: Proprietary Rights in Professional Computer Gaming*, 161 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1535 (2013), <https://www.jstor.org/stable/23527812>. (last visited July 19, 2025)

⁶ SARAH BAST & VICTORIA DESIMONE, UNDERSTANDING THE FACTORS (2019), <https://www.jstor.org/stable/resrep22584.9>. (last visited July 19, 2025)

⁷ *Physiological Arousal Deficits in Addicted Gamers Differ Based on Preferred Game Genre on JSTOR*, https://www.jstor.org/stable/26790908?read-now=1&seq=1#page_scan_tab_contents (last visited July 19, 2025).

⁸ Cindy Burkhardt Freeman, *Internet Gaming Addiction*, 4 THE JOURNAL FOR NURSE PRACTITIONERS 42 (2008), <https://www.sciencedirect.com/science/article/pii/S1555415507006514>.

⁹ W. Bryce Hagedorn & Tabitha Young, *Identifying and Intervening with Students Exhibiting Signs of Gaming Addiction and Other Addictive Behaviours: Implications for Professional School Counselors*, 14 PROFESSIONAL SCHOOL COUNSELING 250 (2011), <https://www.jstor.org/stable/42732906>.

participation in an activity. Experts in psychiatry and psychology contend that it must adversely affect various domains of functioning, such as familial, social, educational, occupational, and psychological areas¹⁰. Growing neurological research indicates that video games might operate in a manner akin to traditional addictive substances, showing significant parallels between the impact of drugs and video games on users' cognitive functions¹¹. Internet addiction is a maladaptive internet use that occurs all over the world¹².

At its core, addiction constitutes a fundamental, chronic disorder that impacts the brain's reward, motivation, memory, and related systems. When these circuits malfunction, they manifest in distinct biological, psychological, social, and spiritual symptoms. This condition becomes apparent when an individual compulsively seeks reward or relief through substance use or other activities. Specifically, Internet addiction involves excessive or uncontrollable thoughts, impulses, or actions related to computer use or Internet access, which result in distress or impede daily functioning¹³. Studies indicate that in severe instances, excessive online gaming can result in symptoms similar to those experienced by individuals with substance addictions, such as increased importance, mood changes, cravings, and developing a tolerance.¹⁴ Empirical scientific studies suggest that Internet gaming addiction develops along a continuum. It originates from underlying causes and risk factors, progresses to a fully manifested addiction, and culminates in adverse outcomes, with potential treatment options available suggests that excessive online gaming may in extreme cases¹⁵. Research offers strong evidence highlighting the similarities among different types of addiction, especially those related to substances and those involving the Internet and gaming, across several dimensions¹⁶. On a molecular level, Internet addiction is marked by a general deficiency in reward, characterised by decreased

¹⁰ Douglas Gentile, *Pathological Video-Game Use Among Youth Ages 8 to 18: A National Study*, 20 PSYCHOLOGICAL SCIENCE 594 (2009), <https://www.jstor.org/stable/40575069>.

¹¹ Mark Zastrow, *Is Video Game Addiction Really an Addiction? Adding Video Gaming to the List of Recognized Behavioural Addictions Could Help Millions in Need. It Could Also Pathologize a Normal Behaviour and Create a New Stigma*, 114 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 4268 (2017), <https://www.jstor.org/stable/26480727>.

¹² Chih-Hung Ko et al., *Brain Activities Associated with Gaming Urge of Online Gaming Addiction*, 43 JOURNAL OF PSYCHIATRIC RESEARCH 739 (2009), <https://www.sciencedirect.com/science/article/pii/S002239560800229X>.

¹³ Catherine So-Kum Tang, Yee Woen Koh & YiQun Gan, *Addiction to Internet Use, Online Gaming, and Online Social Networking Among Young Adults in China, Singapore, and the United States*, 29 ASIA PACIFIC JOURNAL OF PUBLIC HEALTH 673 (2017), <https://www.jstor.org/stable/27009061>.

¹⁴ Daria J. Kuss & Mark D. Griffiths, *Online Gaming Addiction in Children and Adolescents: A Review of Empirical Research* (2012), <https://akjournals.com/view/journals/2006/1/1/article-p3.xml>.

¹⁵ Daria Joanna Kuss & Mark D. Griffiths, *Internet Gaming Addiction: A Systematic Review of Empirical Research*, 10 INT J MENT HEALTH ADDICTION 278 (2012), <http://link.springer.com/10.1007/s11469-011-9318-5>.

¹⁶ Daria J Kuss, *Internet Gaming Addiction: Current Perspectives*, 6 PSYCHOLOGY RESEARCH AND BEHAVIOR MANAGEMENT 125 (2013), <https://www.tandfonline.com/doi/abs/10.2147/PRBM.S39476>.

dopaminergic activity. Regarding neural pathways, Internet and gaming addiction lead to neuroadaptation and structural alterations due to prolonged heightened activity in brain areas linked to addiction. Behaviourally, people with Internet and gaming addiction seem to show limited cognitive functioning in various areas¹⁷. The discourse surrounding gaming addiction is situated within a broader debate that contrasts traditional chemical addictions, such as those involving alcohol, nicotine, and other drugs, with behavioural addictions that do not entail the consumption of psychoactive substances, such as gambling, gaming, sex, and exercise¹⁸.

Adolescent and Gaming Addiction

Massively Multiplayer Online Role-Playing Games (MMORPGs) represent a rapidly expanding form of Internet addiction among children and adolescents¹⁹. Electronic game users are projected to increase by 10%. The COVID-19 pandemic has increased demand for electronic games, particularly team-based games, during quarantine periods and social distancing measures. Adolescents face psychological and behavioural challenges, lacking understanding of their emotional vulnerabilities and struggling with self-regulation. This makes them susceptible to risks with significant life consequences due to their impressionable nature at this developmental stage²⁰. The prevalence of addiction in the German population was 1.7%, with disparity between males (3%) and females (0.3%). A similar trend existed among Dutch adolescents, where 7.1% of males and 3.9% of females were affected. This pattern extended to young adults aged 21–30, with 8.9% of males and 5.1% of females experiencing addiction. The highest rates were in the Asian population, where 12.6% of male adolescents and 4.7% of female adolescents were affected. Overall, the disorder is more prevalent among male adolescents and in certain Asian countries²¹. Internet addiction rates among Asian adolescents exceed those in the United States or Europe, with cultural factors contributing to this disparity. Asian adolescents often struggle with self-expression in face-to-face interactions, leading them

¹⁷ *Internet and Gaming Addiction: A Systematic Literature Review of Neuroimaging Studies*, <https://www.mdpi.com/2076-3425/2/3/347> (last visited July 19, 2025).

¹⁸ Marloes L. C. Spekman et al., *Gaming Addiction, Definition and Measurement: A Large-Scale Empirical Study*, 29 COMPUTERS IN HUMAN BEHAVIOR 2150 (2013), <https://www.sciencedirect.com/science/article/pii/S0747563213001660>.

¹⁹ Kimberly Young, *Understanding Online Gaming Addiction and Treatment Issues for Adolescents*, 37 THE AMERICAN JOURNAL OF FAMILY THERAPY 355 (2009), <http://www.tandfonline.com/doi/abs/10.1080/01926180902942191>.

²⁰ Bayan Habis Alnaimat et al., *Impact of Electronic Games Addiction Post COVID-19 on the Mental Health of Public-School Students in Jordan*, 11 61 473 (2023), <https://archive.conscientiabeam.com/index.php/61/article/view/3416>.

²¹ Luca Milani et al., *Internet Gaming Addiction in Adolescence: Risk Factors and Maladjustment Correlates*, 16 INT J MENT HEALTH ADDICTION 888 (2018), <http://link.springer.com/10.1007/s11469-017-9750-2>.

to express themselves more freely online. Online gaming popularity has increased rapidly, particularly in the 21st century, which is expected to be dominated by digital gaming. According to China Internet Network Information, 27.3% of the 485 million internet users are adolescents²².

The brain imaging study showed healthy control subjects had a 10.5% reduction in dopamine D2 receptor occupancy in the caudate after engaging in a motorbike riding computer game, compared to baseline levels. The research finding indicates increased dopamine release and binding to receptors²³. Studies of Internet gaming addiction show that these games let individuals create fictional personas in digital spaces and interact with strangers as an escape from reality²⁴. Through the application of functional magnetic resonance imaging (fMRI), biological research has revealed that individuals with gaming addiction exhibit neural processes and increased activity in brain regions similar to those associated with substance-related and other behavioural addictions, such as pathological gambling. Notably, significant activation is observed in the left occipital lobe, parahippocampal gyrus, dorsolateral prefrontal cortex, nucleus accumbens, right orbitofrontal cortex, bilateral anterior cingulate, medial frontal cortex, and the caudate nucleus²⁵. Research has shown that online games are used as a tool for stress relief. Nevertheless, becoming addicted to these games can lead to behavioural issues in teenagers, such as displaying aggressive behaviour and experiencing a decline in self-discipline²⁶.

Excessive screen time, particularly among younger people, can have negative effects, and gaming may become time-consuming and addictive for vulnerable individuals. These insights have led to gaming disorder (GD)—commonly known as "video game addiction"—a condition

²² Emka Farah Mumtaz, Safendri Komara Ragamustari & Fajar Bambang Hirawan, *The Impact of the E-Sport Curriculum Toward Online Game Addiction*, 9 TAZKIYA 29 (2021), <http://journal.uinjkt.ac.id/index.php/tazkiya/article/view/19986>.

²³ Aviv Malkiel Weinstein, *Computer and Video Game Addiction—A Comparison between Game Users and Non-Game Users*, 36 THE AMERICAN JOURNAL OF DRUG AND ALCOHOL ABUSE 268 (2010), <https://www.tandfonline.com/doi/full/10.3109/00952990.2010.491879>.

²⁴ Pirzada Sattar & Sriram Ramaswamy, *Internet Gaming Addiction*, 49 CAN J PSYCHIATRY 871 (2004), <https://journals.sagepub.com/doi/10.1177/070674370404901225>.

²⁵ Mark D. Griffiths, Daria J. Kuss & Daniel L. King, *Video Game Addiction: Past, Present and Future*, 8 CPSR 308 (2012), <http://www.eurekaselect.com/openurl/content.php?genre=article&issn=1573-4005&volume=8&issue=4&spage=308>.

²⁶ Chulhwan Choi, Mary A. Hums & Chul-Ho Bum, *Impact of the Family Environment on Juvenile Mental Health: eSports Online Game Addiction and Delinquency*, 15 INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH 2850 (2018), <https://www.mdpi.com/1660-4601/15/12/2850>.

characterised by persistent gaming, lack of control, and impaired functioning²⁷. The results of a study demonstrated that 90% of the studies identified a correlation between diminished emotional regulation (ER) and increased symptoms of video gaming or gambling disorders. Importantly, 13 studies (65%) reported medium to large effect sizes²⁸. Another study's results suggest a connection between video game addiction and issues such as depression, lower academic performance, and behavioural problems. However, it does not appear to be associated with binge drinking²⁹. A study examining Arab students found a negative correlation between electronic gaming and health, social interactions, and physical activity. Research has shown negative associations between gaming and health outcomes, along with various mental and physical risks. Excessive gaming's detrimental effects include seizures, tendon injuries, social isolation, and aggressive behaviour from violent video games³⁰. A Research shows that Chinese adolescents have a higher rate of Internet gaming addiction (2.2–21.5%) compared to their peers in Europe (1.4–9.4%) and the United States (7.6–9.9%). The research also indicated that boys have a higher tendency than girls to become addicted to Internet gaming³¹.

Adolescents may participate in online gaming to fulfil unmet psychological needs. A study conducted among high school students in the Turkish regions of Sakarya, İzmir, İstanbul, and Muğla, who are either acquainted with or addicted to online games, demonstrates a positive correlation between sensation-seeking behaviours and addiction to online gaming³². Electronic game addiction poses dangers to users' social interactions and perceptions. This addiction can disrupt communication and cause social isolation, especially in children. These individuals may exhibit maladaptive behaviours, such as suicidal thoughts, skipping school, or aggression. Adolescents, who are intellectually and psychologically unstable, are particularly prone to aggressive behaviours. Research shows that socially isolated youth display more aggression

²⁷ Daniel L. King & Paul H. Delfabbro, *Chapter 7 - Video Game Addiction*, in *ADOLESCENT ADDICTION (SECOND EDITION)* 185 (Cecilia A. Essau & Paul H. Delfabbro eds., 2020), <https://www.sciencedirect.com/science/article/pii/B9780128186268000074>.

²⁸ Loredana A. Marchica et al., *The Role of Emotion Regulation in Video Gaming and Gambling Disorder: A Systematic Review*, 10 *CANADIAN JOURNAL OF ADDICTION* 19 (2019), https://journals.lww.com/cja/abstract/2019/12000/the_role_of_emotion_regulation_in_video_gaming_and.4.aspx.

²⁹ Geir Scott Brunborg, Rune Aune Mentzoni & Lars Roar Frøyland, *Is Video Gaming, or Video Game Addiction, Associated with Depression, Academic Achievement, Heavy Episodic Drinking, or Conduct Problems?* (2014), <https://akjournals.com/view/journals/2006/3/1/article-p27.xml>.

³⁰ Abdullah Ghurm Alshehri & Ahmed Mohamed Abdel Salam Mohamed, *The Relationship Between Electronic Gaming and Health, Social Relationships, and Physical Activity Among Males in Saudi Arabia*, 13 *AM J MENS HEALTH* (2019), <https://journals.sagepub.com/doi/10.1177/1557988319873512>.

³¹ Li Quancai, Cui Meng & Cui Kunjie, *Social Control and Self-Control: Factors Linking Exposure to Domestic Violence and Adolescents' Internet Gaming Addiction*, 14 *FRONT. PSYCHIATRY* (2023), <https://www.frontiersin.org/journals/psychiatry/articles/10.3389/fpsy.2023.1245563/full>.

³² *Id.*

than peers who are not isolated³³. A study conducted among adolescents in Taiwan suggests that video game addiction can be statistically predicted based on levels of hostility, with individuals exhibiting high levels of video game addiction demonstrating greater hostility than their peers. Furthermore, both gender and video game addiction are inversely correlated with academic performance³⁴. Ten individuals who experienced epileptic seizures while playing Massively Multiplayer Online Role-Playing Games (MMORPGs) were examined. Most were young adult males, and the seizures were predominantly generalized tonic-clonic, myoclonic, and absence seizures. These individuals should be classified under idiopathic generalized epilepsies. While photosensitivity played a crucial role, behavioural and cognitive activities also appeared to trigger seizures³⁵.

Online Gaming and Delinquency

Adolescents who are heavily engaged in online gaming often exhibit behaviours commonly associated with juvenile delinquency, such as alcohol consumption and smoking, and they tend to associate with peers who share similar gaming addictions. Research conducted on youth in South Korea suggests that addiction to online games is correlated with an increase in delinquent activities³⁶. Due to its intense and violent nature, the game might provoke similar behavioural shifts in its players through mechanisms like the social-cognitive learning processes outlined in the general affective aggression model. Regarding criminal activities, there have been recorded cases of crimes linked to mobile games in different parts of the world. A recent randomised controlled trial found that young children who play violent video games involving guns are more prone to engage in risky behaviours with firearms, such as touching, holding, and pulling the trigger³⁷. The increasing prevalence of cyber-criminal activities associated with online gaming is a growing concern. In several countries, including Taiwan, South Korea, China, and Hong Kong, these gaming-related offenses have emerged as the most significant form of cybercrime. The perpetrators are predominantly male and typically operate

³³ Walaa Elsayed, *Covid-19 Pandemic and Its Impact on Increasing the Risks of Children's Addiction to Electronic Games from a Social Work Perspective*, 7 HELIYON (2021), [https://www.cell.com/heliyon/abstract/S2405-8440\(21\)02606-2](https://www.cell.com/heliyon/abstract/S2405-8440(21)02606-2).

³⁴ Shao-I Chiu, Jie-Zhi Lee & Der-Hsiang Huang, *Video Game Addiction in Children and Teenagers in Taiwan*, 7 CYBERPSYCHOLOGY & BEHAVIOR 571 (2004), <https://www.liebertpub.com/doi/abs/10.1089/cpb.2004.7.571>.

³⁵ Yao-Chung Chuang, *Massively Multiplayer Online Role-Playing Game-Induced Seizures: A Neglected Health Problem in Internet Addiction*, 9 CYBERPSYCHOLOGY & BEHAVIOR 451 (2006), <https://www.liebertpub.com/doi/abs/10.1089/cpb.2006.9.451>.

³⁶ Chulhwan Choi, et.al, *supra* note 26.

³⁷ Sujita Kumar Kar, Sm Yasir Arafat & Vikas Menon, *Mobile Games, Behavioral Addiction, Crime, and Crime Reporting: Fault Is Everywhere!*, 65 INDIAN JOURNAL OF PSYCHIATRY 1195 (2023), https://journals.lww.com/10.4103/indianjpsychiatry.Indianjpsychiatry_572_23.

independently. A substantial proportion of these offenders, exceeding 60%, are aged between 15 and 25. They are often students, workers, or unemployed individuals, and the majority do not possess prior criminal records³⁸. According to the General Aggression Model, exposure to violent video games increases likelihood of aggressive cognitions and beliefs. Furthermore, extended online gaming may lead to online game addiction, also known as Internet Gaming Disorder, as classified by the DSM-IV³⁹.

An area of particular interest is crime that generates income, which includes activities such as theft, fraud, burglary, forgery, deception, larceny, and robbery. A study on electronic gambling conducted in Victoria, Australia, after considering various statistical factors, demonstrates a consistent, positive, and significant link between gambling and crime rates, especially those associated with income-generating crimes, at the local level⁴⁰. With the rise of online gaming, there has been an increase in criminal activities and anti-social behaviour. Since 2001, Taiwan has experienced numerous cybercrime incidents related to online gaming, including theft, fraud, robbery, threats, and sabotage. According to the National Police Administration of Taiwan, 2002 recorded 3,553 cybercrime cases with 3,983 prosecutions. Over 1,300 cases, about 37% of all cybercrimes, were linked to online gaming. These gaming-related cases now constitute a distinct cybercrime category. Similar incidents have been reported in other Asian countries, with online cheating being the most serious offense⁴¹. An investigation into online gaming addiction and associated psychological traits, such as aggression, self-control, and narcissism, indicates that these characteristics may predispose individuals to develop gaming addiction⁴². A study conducted at a juvenile rehabilitation centre in Isfahan, Iran, identified a significant correlation between adolescents' engagement in computer gaming and their

³⁸ Zhenjiang Liao et al., *Prevalence of Gaming Disorder in East Asia: A Comprehensive Meta-Analysis*, 11 JBA 727 (2022), <https://akjournals.com/view/journals/2006/11/3/article-p727.xml>.

³⁹ Zhaojun Teng, Yujie Li & Yanling Liu, *Online Gaming, Internet Addiction, and Aggression in Chinese Male Students: The Mediating Role of Low Self-Control*, 6 IJPS (2014), <http://www.ccsenet.org/journal/index.php/ijps/article/view/34341>.

⁴⁰ Sarah A. Wheeler, David K. Round & John K. Wilson, *The Relationship Between Crime and Electronic Gaming Expenditure: Evidence from Victoria, Australia*, 27 J QUANT CRIMINOL 315 (2011), <https://doi.org/10.1007/s10940-010-9123-5>.

⁴¹ Y -C Chen et al., *Online Gaming Crime and Security Issue - Cases and Countermeasures from Taiwan*, in PROCEEDINGS OF THE 2ND ANNUAL CONFERENCE ON PRIVACY, SECURITY AND TRUST (2004).

⁴² Eun Joo Kim et al., *The Relationship Between Online Game Addiction and Aggression, Self-Control and Narcissistic Personality Traits*, 23 EUROPEAN PSYCHIATRY 212 (2008), <https://www.cambridge.org/core/journals/european-psychiatry/article/abs/relationship-between-online-game-addiction-and-aggression-selfcontrol-and-narcissistic-personality-traits/CF6B1C4E1200355198AFD5412C218780>.

propensity for criminal behaviour⁴³.

Remedies to overcome Addiction

The Internet is playing a major role in the rise of cybercrime and pornography, as well as a decline in physical activity. Further, it increases the amount of available content, improving distribution speed, and making access easier resulting in deviance. All these, highlight the simplicity of access and the potential for misuse⁴⁴. Online game developers should consider implementing mechanisms to mitigate excessive gaming, as they should owe duty for the products they create. For instance, incorporating in-game time tracking systems that mandate players to log out after extended play sessions could help mitigate excessive gaming behaviours. Furthermore, designing avatars to experience fatigue and lose points due to overplaying may also serve as a deterrent to excessive gaming.⁴⁵ A study among juveniles aged 6 to 17 in the UAE shows that COVID-19 has increased children's addiction to electronic games. The study unfurled a tapestry of risks, with "Behavioural Risks" reigning supreme at a staggering 91.15%, closely pursued by the shadowy specters of "Social Risks" at 85.5%, "Psychological Risks" at 80.91%, and "Health Risks" trailing at 64.28%. These revelations underscore the urgent call to arm caregivers with the knowledge to vigilantly oversee game content, especially those steeped in violent themes. Parents should limit gaming hours, maintain communication with children, and impose controls on gaming to address behavioural, psychological, and social issues, including aggression, violence, deception, physical stress, poor eyesight, academic delay, depression, social isolation, and difficulties in forming relationships.⁴⁶

⁴³ Mehdi Zakavi, *Computer Games, Crime, Criminal Tendencies, Children and Juveniles*, 18 JOURNAL OF CULTURE-COMMUNICATION STUDIES 103 (2017), https://www.jccs.ir/article_54120_en.html.

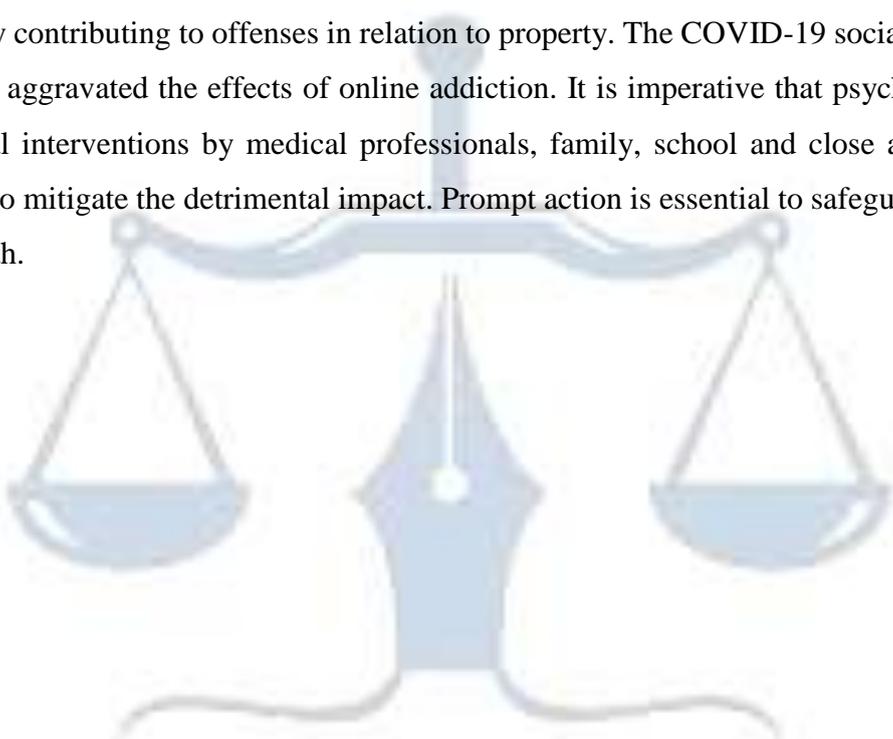
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Conclusion

The phenomenon of electronic addiction is becoming increasingly widespread, with significant negative consequences that necessitate immediate intervention. This addiction profoundly affects adolescents, whose neurological development is critically compromised. During this pivotal developmental stage, children and young adults experience impeded growth, with repercussions comparable to those encountered by individuals with substance use disorders. The enormity of online addiction has surpassed the safety thresholds, adversely impacting the younger generation. Further, it is correlated with a rise in criminal tendencies among youth, particularly contributing to offenses in relation to property. The COVID-19 social restrictions, has further aggravated the effects of online addiction. It is imperative that psychological and behavioural interventions by medical professionals, family, school and close associates are necessary to mitigate the detrimental impact. Prompt action is essential to safeguard the future of our youth.



WHITE BLACK
LEGAL.