

The Negative Effects of Short-Form Videos on Children's and Adolescents' Education

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Abstract. Short videos have become extremely popular in today's society. Many researchers have identified some harmful effects, especially on children's and teenagers' education. However, there is still a lack of recent summaries regarding the mechanisms and severity of these harms, as well as the current status of efforts to address the problem. This article examines the harm of excessive short-video use on children's and teenagers' education. The research method is a literature review. This study found that excessive short-video use may reduce children's and teenagers' attention, occupy study time, and exacerbate harm due to addiction; the developing brain may be more vulnerable, and vulnerable groups such as left-behind children may be affected more severely, but are often overlooked. Existing governance policies are still imperfect and have limited effectiveness. Regulations and social attention should be strengthened; adolescents should improve self-control and cooperate with governance; and parents should set a good example and reduce their own use.

1 Introduction

Short videos have become a highly popular phenomenon in recent years. More than 1 billion users have been recorded on Douyin. Although short video sites have transformed the lives of the general population in the realm of entertainment and made substantial profits, the consequences of their overuse have not gone unnoticed, as they have been shown to affect attention and time utilization. There are multiple negative consequences of using excessive amounts of short videos on users of diverse ages. The effects of overindulgence in the use of short videos on the education of children and teenagers can be deemed as one of the issues warranting special consideration. Education is important in the development of a nation, therefore, as children and teenagers will be the future of society, the topic is very important. Presently, it is observed that the number of research efforts on the ill effects of short videos has gone up more than in the past, which involves scientific processes, policies, and more. Nevertheless, this sphere is not quite at the stage of maturity and completeness. Currently, researchers are finding the details of the way short videos influence child and adolescent education more frequently. There is also a slow but steady formulation and implementation of policies regarding the alleviation of the overuse of short videos. As the field of scientific

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discoveries and policies is constantly changing, the nature of the problem of excessive use of short videos in the education of children and teenagers should be further researched, analyzed, and discussed. This will allow citizens to grasp the negative impact of short videos on the education of children and teenagers and be more liable to avoid similar issues. Previous literature, more specifically those of the last few years, form the foundation of this study where the research and analysis are carried out regarding the damage of excessive exploitation of short videos to the learning of children and teens. It discusses some issues, such as the damage on the outcome level, the physiological mechanism, the social impact, the reasons that have been underestimated, and the present state of the related policies. It seeks to explain the scenarios in terms of the damage caused by short videos to the learning of children and adolescents, giving people the references.

2 Complicated adverse effects on children and adolescents' education of using short videos

An increasing body of literature has shown that short video usage can have adverse educational performance of kids and adolescents. Taken as a whole, these studies contain a significant portion of empirical data and theoretical explanations as to how short videos could potentially improve learning. To some degree, the adverse impact of short videos on the education of children and adolescents may be classified into three areas: addiction, time displacement, and attentional problems

Firstly, the use of short videos can also lead to addictive behavior. It can be mentioned that due to the ability of the reward system in the human brain to quickly and effectively get activated by the illustrated short context structure of short videos, which is fragmented and fast-paced [1]. In the process, it can cause a great increase in the release of dopamine [1]. It may even mean that the constant release of massive doses of dopamine not only initiates the deeper dependence of the user, but also increases their desire to keep taking it. Thus, the discontinuous mode of short videos could tend to become a risk factor for addictive usage. The addictive use can be a cause of other negative effects, as well as worsen other damages by increasing the total exposure level through compulsive, hard-to-restrain viewing

Second, time displacement. The general average of the Chinese duration spent on short videos was 2 hours and 36 minutes a day, as illustrated by the "China Network Audio-Visual Development Research Report (2025)" [2]. Other studies mention that short videos are a time sink [3]. A sample of college students in a particular area showed that 65.5% spent more than 2 hours a day on Douyin, and 31.75 percent would spend their work/study time on Douyin. Combined, the evidence available indicates that the use of short videos is linked to a significant amount of time displacement [3]. In the case of children, excessive consumption of social media implies that they spend much time, which could be utilized in other, more important areas like sleeping and learning, and physical and offline social activities [3]. This negatively affects the development and growth of children in cognitive, emotional, and physical health, among others. Short videos could also discourage the time spent studying among the adolescents and be harmful to the performance of such students.

Third, impairment of attention. The impairment of attention can be one of the most substantial mechanisms by which short videos influence the learning and education of adolescents. Short videos are the most engaging because of the characteristics of the platforms, and students devote excessive dissimilar attentional resources to short videos, thereby ignoring their studies [1]. Theoretical accounts not only give increasing importance to this concern but there is also uniform evidence presented by empirical research. As an example, a study based on eye-tracking techniques offers rather ample evidence according to the finding that people addicted to using short videos find it more challenging to retain their

focus [1]. Short videos can also alleviate the capacity to concentrate on specific exercises over a prolonged time, and the learning of students commonly necessitates focusing on a specific task over a long time period [1]. This can be used as one of the reasons as to why overuse of short videos is especially detrimental to academic achievements [3]. Excessive use of short videos may also be linked to concentration issues in order to explain the dopamine tolerance induced by excessive consumption [1]. When viewing short videos during free time, the activation of the responses related to rewards might occur periodically, so students to whom this vast dose of dopamine is repeatedly administered become used to increased stimulation [1]. These activities might provide less immediate reward compared to the short-form videos when they resume the traditional classroom training and practice and reduce perceived engagement and motivation [1].

To sum up, various theoretical perspectives and empirical evidence all lead to the perception that overuse of short-form video is linked with attentional difficulties and, therefore, can ruin academic performance [3, 4]. Furthermore, addictive use, Time displacement and attentional impairment are three paths, which can be explained as interrelated, by which excessive use of short-form videos can impair the results of children and adolescents in their educational systems [1, 3, 4].

3 The negative consequences of short form videos on education of children and the adolescents have been underestimated

The usage of the term, short video addiction, in this article is very broad because an excessive use pattern is defined to be compulsive, albeit tolerant, with withdrawal symptoms, and considerable restriction of everyday functioning. The World Health Organization International Classification of diseases, 11th Revision (ICD-11) identifies disorders caused by addictive behaviours as recognizable and clinically significant syndromes of distress or disruption of personal functioning that evolve because of repetitive and rewarding behaviours other than dependence producing substances [5].

3.1 The underestimated depth: A mechanistic examination of the neurodevelopment vulnerability of adolescents

The most dangerous damage from the short videos above is the fact that they may lead to non-functioning of attention and this issue is more serious among youth [4, 6]. Youths are in a very tender period of formal schooling, and in case there are severe attentional problems, this may cause a great setback to their learning results

Neurobiologically, adolescence and early adulthood represent a time during which neural maturation occurs [7]. During this period, there is a higher rate of addictive disorders of occurrence [8, 9]. Also, the neural structures involved in decision making and inhibitory control among teenagers are not properly established, thus they are prone to temptation [7, 8]. Hence, adolescence is more likely to adopt addiction-like symptoms of using short videos [8, 9].

The prefrontal cortex has been maturing little by little over a period of childhood till adolescence [7]. Immaturity of the prefrontal cortex not only increases the likelihood of children and adolescents developing problematic short-form video use, but it also might complicate the ability to decrease problematic use once problematic patterns have been established [7, 9]. This also implies that the developing underdeveloped prefrontal cortex could be negatively impacted by watching short-form videos that are very stimulating [7].

Consequently, the younger children are the age group in which short videos can have the most influence among all children and teenagers [6, 7].

3.2 Insufficient scope: The multiplicative power of vulnerable populations as exemplified by the example of left-behind children

Even though the negative effects of the use of short videos on the education assessment of all children and teenagers are essential, some groups are highly susceptible and can be impacted more severely than others. A classic case is left-behind children. Among relatives of non-left-behind children, it is empirically shown that left-behind children are more likely to become addicted to short videos [10]. Besides, the size of this group is large. The left behind children are estimated to be more than 60 million in China alone.

The fact that there is no parental company and control is one of the largest traits of the rural children's living environment [10]. Emotional distress can arise as a result of being separated from parents over a long period. In some cases, rural children usually use short videos to counter this emotional suffering [10]. Children in rural areas can initially develop sadness and apathy. In order to avoid such negative feelings or pressure, they can consume more short videos. These are other purposes of use of short videos that raise the chances of addiction [10]. Another effect is the decreased level of self-control due to the parental lack of supervision and the absence of emotional support [10]. This is not only likely to put the rural children at greater risk of addiction but also to increase the challenges faced by them when they become addicted [10].

Whether the left-behinds or the non-left-behinds, academic performance is tightly connected with enhanced employment prospects in the future, and in a way, it would predetermine the long-term life results of both the left and the non-left groups to some extent. Nevertheless, excessive and compulsive use of the short-form videos is linked with worse school performance among children and adolescents [3, 4, 6]. Hence, the increased susceptibility to short videos can imply the possibility of further challenges with the improved educational and workplace performance of left-behind children. In general, left-behind children usually live in settings that are comparatively under-provided with educational resources, which makes it even more difficult for the formerly mentioned youngsters to attain high academic performance. Provided that they feel more negativity because of addiction to short videos than to other types, the success level will become more challenging. The adverse effect of short video addiction on academic achievements can be even worse when considering that left-behind children, who are already deprived of educational resources because of a lack of access to a quality education system, will also struggle to obtain efficient academic resources and intervention. This may increase the already existing education disparities and serve as a new means of enhancing education inequality. Simultaneously, left-behind children also have addictive behaviors related to depressive symptoms [10].

Over the last several years, the negative impact of short video overuse on the education of children and adolescents has been a topic of growing literature. Nevertheless, the studies focusing on the most vulnerable cohort of left-behind children are relatively few [10]. To this degree, this implies that the current literature has failed to adequately find a solution to the grave issue with which left-behind children are harmed, especially adversely by short videos. It could also result in the underestimation of the severe outcomes of the overuse of short videos in much of the education of children and teens.

3.3 The biases of cognition may make one downplay the evils of watching short-form videos

The damage of the short video to the education of children and teenagers is likely to be neglected partly since the evidence base is still limited, and the related research is not complete and adequate.

According to previous research, there is scarce research on the effects of addictive use of short videos on the attention of users [1]. Furthermore, being a peculiar type of entertainment that cannot be confused with the other types of entertainment, most of its influences are yet to be investigated [1, 7].

The very stimulating format of short videos can be addictive and developmental neurobiology can predispose children and teenagers to acquire more addictive-like behaviors in a greater degree [7–9]. With a combination of the two factors, a myriad of other serious effects may occur. The scales of these effects, as well as the processes of their formation, are still not understood.

The short-form video is a relatively new phenomenon that has been in existence within a few years. The studies on the detrimental effect of short videos on the education of children and teenagers are still rather limited [1, 7]. The lack of evidence not only restricts the process of coming up with practical preventive measures but also impairs a thorough assessment of the character and scale of the damage caused by short videos to different elements of the education of children and teenagers.

The evidence on the harms of short videos is relatively scarce and unavailable. This challenge is bound to come when governments attempt to formulate policies to help deal with the issue and when individuals desire to create awareness of the extent of the issue. These issues might be reduced later on with the availability of more studies.

4 Mitigating the adverse consequences of short videos concerning the education of teenagers and children.

4.1 Family-based strategies to mitigate adverse educational impacts of short-form video use in children and adolescents

The behavior and attitude of a parent in the family can impact a child in the long run as compared to certain practices like supervision and control [3]. Even the seconds-long duration of the time parents spends watching short videos in the family can alter the habits of using short videos and the time a child spends on short videos under-the-impression [3]. As an illustration, children can emulate their parents in the use of short videos, making them more common among children [3]. Moreover, when parents tend to use short videos, it can indicate that the parents not only condone the consumption of short videos but also do not condemn it, and thus, it can shape the behavioral policies of a child towards short videos [3]. Simultaneously, the large proportion of parents, who view short videos on a regular basis, could indicate that they, too, exhibit lower attentional involvement in parent-child contacts, thus being possibly to be linked with attentional outcomes among children [3]. Consequently, the problem of inattentiveness among children that can be attributed to the use of short videos by parents can be connected to the deterioration in the performance of children at school.

To ensure that they and their children can manage the use of short videos and avoid its problematic use, parents can also use certain methods. As an example, establish some use limitations and either follow it with the children, or change the time spent watching short videos with more healthy alternatives to these activities, i.e., outside activities. There are numerous effective ways which can reduce or eliminate the damaging effects of short videos

on education of children and adolescents as soon as parents have come to acknowledge the necessity of not overuse of short videos and the influence of personal use of short videos on their children and teenagers.

4.2 Government policy measures to reduce adverse educational impacts of short-form video use in children and adolescents

Broadly, since a popular new phenomenon, which is a harmful event to a large social group like teenagers and children, it is in the interest of the government to safeguard them to the extent possible. The government has a certain role in the educational process of safeguarding human children and teenagers. In general, despite the years when short videos were gaining more popularity, the government still made certain efforts to offer some resolutions to the issue. Nevertheless, the protective policies of the government that should protect children and teenagers against the negative effects of short videos were not properly developed. Restricting minors, the inability to limit short video sites that do not require logging in, and the inability to enforce the policies adopted with little difficulty often create significant challenges to governments, among which are the lack of available experience, among others.

An excellent example is the social media age ban on the underage in Australia. This was a worthy attempt. It was one of the primary reasons to protect minors against the malevolence of short videos. Parents, politicians, educators and clinicians were reported to have supported this policy [11]. But due to a very short period of implementation of this policy, its effectiveness is not very clear [11]. The biggest challenge with the introduction of this policy is the issue of how social media sites can ensure governmental reliability and age checking on the usage of short videos by underage people [11]. Taking into account the fact that there is little use in reporting the age, there are still some challenges associated with the introduction of this policy [11]. Nevertheless, as the AI technology develops, this problem can open up new opportunities to overcome the problem on the basis of fair privacy protection [11]. At the moment, the policy continues to be limited in a number of ways. Nonetheless, as an example, risks can remain in the platform that do not fall under the ban, and in the platform where one can browse without accounts [11]. Currently, it is yet unclear what the long-term impacts will be [11]. When the policy is applied and developed in the future, people will be in a better position to acquire greater experience; hence, revising and enhancing the government supervision. It is probable that the problematic use of short videos will have less influence on the education of children and teenagers with the implementation and adjustment of the policy. Other governments can also learn a lot from the practical experience in this process.

On the contrary, other aspect regulations, such as the EU Digital Services Act, can also potentially assume some regulatory functions towards short-video sites through information concerning the protection of minors and assurance of age [12]. The United States had open law and political ambiguity in its policies, which targeted Tik Tok and other platforms of similar usage. Controversies have also been created by the so-called youth mode of China: the objectives of this mode are to protect minors more effectively, yet restrictions in its practical application and its efficiency can be viewed as issues [13].

In general, no mature policies and legislations are established to ensure that the education of children and teenagers is not in the harm's way of short-video platforms, and the number of open issues is still significant. This could be attributed to the fact that the popularity of short videos is not very old, but it is not of long duration.

The US and some European nations are among the countries that do not have detailed and focused policies to curb the abuse of short videos. The major difficulty that may arise when governments respond to such problems may be how to pattern and implement specific binding legislation that prevents any harm by minors as a result of the short video

information. Numerous governments in the world are continuing to make numerous attempts and efforts. On the one hand, the better solutions could be offered by sophisticated AI tools (e.g., age verification and content moderation). Conversely, with the implementation of the policies, the government may also acquire some experience through practice and at a slower pace, develop more effective rules related to regulations. Probably, the direction of the future policy will become clearer along with the increase of technological achievements and the experience of practical work.

5 Conclusion

This paper is an eye opener to show that overindulgence in short videos has numerous negative consequences on children and teenage education. Their primary effects are attention reduction in children and adolescents, difficulty in concentrating in the process of studying, and excessive usage of time. Simultaneously, short videos can be addictive to users and this is also enhancing such harms. Due to the fact that the brains of children/adolescents are immature they are especially susceptible in terms of attention and self-Regulation. On the social level, certain vulnerable populations like left-behind children will become affected by the short videos worse than others are likely to be, yet they are not named much. Some of the policies have been instituted by the government to mitigate heavy consumption of short videos, yet they are not mature enough, and present serious practical challenges and therefore their effects are not very strong. In general, the issue of overuse of short videos that is detrimental to the education of children and adolescents remains one of the significant problems in the given stage. Hopefully, children and adolescents will be more aware of the evilness of short videos and attempt to avoid them, and, simultaneously, collaborate with the government to develop appropriate regulations. By watching less short videos, parents should also be a good example in order to mitigate the effect on their children. The research synthesizes the actual implications, scientific processes, and measures to give a review of the current state of the villainy of short videos on the education of children and adolescents. It is also a source of future research in the field. As the above analysis suggests, the policies today trying to combat the damage of short videos to education of children are quite limited and partial. By introducing and enacting additional policies, subsequent studies will have more extensive reviews in this context, thus, contributing to the knowledge of people regarding the situation with the policy and facilitating its know-how and advocacy of preventing the harmful impact of short videos on the education of children.

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