

# *A review of research on the impact of new media on adolescents' pro-social behavior*

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**Keywords:** New media, adolescents, pro-social behavior

**Abstract:** New media has a significant impact on the social behavior of contemporary adolescents, including their prosocial behaviors. This study retrieved literature from the China National Knowledge Infrastructure (CNKI) published between 2015 and 2024, using the keywords "adolescents," "new media," and "pro-social behavior," resulting in a total of 53 Chinese-language articles. By analyzing the existing literature, the study explores the mechanisms through which new media both promotes and inhibits adolescents' prosocial behaviors. The findings indicate that new media positively shapes adolescents' sense of social responsibility and cooperation by providing opportunities for behavioral imitation, reinforcing social interaction and belonging, and disseminating prosocial information. However, its characteristics of pervasive entertainment and fragmentation may weaken adolescents' empathy and the authenticity of their actions, and even reduce prosocial tendencies by negatively affecting adolescents' interpersonal relationships and values. Based on these findings, this paper proposes strategies for promoting the development of prosocial behaviors among adolescents, focusing on educational interventions, the roles of families and schools, and the design of policies and platforms.

## 1. Introduction

With the rapid development and widespread adoption of new media technologies, the digital environment has become increasingly important in the social lives of adolescents. According to the Blue Book of Youth: China Minors' Internet Use Report (2023), the internet penetration rate among minors is 97.2%, with 87.0% of underage internet users possessing their own internet access devices. Additionally, 54.1% of minors frequently browse short videos <sup>[1]</sup>. Adolescents are particularly sensitive to internet pop culture and are inclined to follow new trends. New media, characterized by its transience of time and space, interactivity, personalization, high transmission speed, and vast information volume, has become a crucial channel for adolescents to express themselves and build interpersonal relationships. As a result, the role of new media in shaping adolescents' social behavior has garnered increasing attention<sup>[2][3]</sup>. In 2023, the State Council issued the Regulations on the Protection of Minors' Online Activities, with Article 43 emphasizing the need to establish a robust anti-addiction system to ensure the healthy development of adolescents' social behaviors <sup>[4]</sup>.

Prosocial behavior broadly refers to actions that align with societal expectations and benefit

others and society, such as helping, cooperating, and sharing. It is a key indicator of adolescents' psychological well-being and plays a vital role in enhancing social harmony and cohesion<sup>[5][6]</sup>. This paper aims to systematically analyze the mechanisms through which new media influences adolescents' prosocial behavior by reviewing existing research. It explores both the positive impacts and potential challenges of new media, proposes targeted strategies for cultivating prosocial behaviors among adolescents, outlines future research directions, and provides theoretical support for innovative practices in school mental health education.

## **2. Research Methods on Adolescents' Prosocial Behavior in the Context of New Media**

Past research on prosocial behavior has primarily employed methods such as observation, surveys, and experimental research. Due to the unique characteristics of adolescents' prosocial behavior in the context of new media, several emerging research methods have been developed.

### **2.1 Big Data Analysis**

Big data research has gradually gained recognition in the scientific community. Researchers can explore behaviors and phenomena occurring in cyberspace by collecting and analyzing large-scale user data from social media platforms (e.g., likes, retweet rates). Based on this extensive data collection, data mining techniques can be used to investigate the mechanisms and processes underlying online behaviors and phenomena, providing practical methods and foundations for addressing issues like information overload. Moreover, the data collected in big data research is more likely to reflect natural conditions, which helps to reduce biases such as the experimenter effect and the Hawthorne effect, thus minimizing the impact of irrelevant variables. Given the vast volume of data, the statistical results can be generalized to the entire population<sup>[7]</sup>.

### **2.2 Network Analysis**

Network analysis is a method that uses visualization to explore the interactions between different components of a psychological concept or related behaviors, as well as their underlying structure. The principle of network analysis is to treat the variable structure as an integrated network. By examining the relationships between internal components within the network, it reveals the characteristics of different components (i.e., nodes) and their structural relationships, ultimately identifying the core features of a psychological concept<sup>[8]</sup>. Some researchers have used network analysis to study the interactions between different components of prosocial behavior. Their findings revealed that the expected influence index of compliance and public-spiritedness was the highest within the dimensional network of adolescents' prosocial behavior, and they explored the interrelationships among the various dimensions<sup>[9]</sup>.

### **2.3 Implicit Association Test (IAT)**

Traditional research on prosocial behavior has often been influenced by social desirability bias. To mitigate this effect, some scholars have recently introduced a method from the field of implicit cognition—the Implicit Association Test (IAT)—to the study of prosocial behavior. This method not only avoids the impact of social desirability bias on the validity of the study but also uncovers the implicit and unconscious aspects of behaviour<sup>[10]</sup>. Jiang Da and Wang Xinrui used the IAT to examine the prosocial behaviors of middle school students and found no gender differences in implicit prosocial tendencies. They also highlighted that the IAT could be an effective tool for measuring prosocial behaviour<sup>[11]</sup>.

### **3. Influence Mechanisms of New Media on Pro-social Behavior**

#### **3.1 Relevant Theoretical Foundations of the Influence Mechanism**

##### **3.1.1 Social Learning Theory**

Bandura's social learning theory emphasizes the role of observational learning and role modeling in the formation of pro-social behavior. According to Bandura, most human behaviors are acquired through observation, and observational learning is the primary way individuals learn. It consists of four processes: attention, retention, reproduction of action, and motivation. Learners do not need to experience these behaviors firsthand; instead, they learn by observing the behaviors of role models and their reinforcing consequences. In this cognitive mechanism, the learner's self-efficacy and outcome expectations play a central role<sup>[12]</sup>. This suggests that in the new media environment, adolescents may observe the social behavior patterns of others on social media, forums, or other online platforms—such as offering help, sharing useful information, or showing empathy—or witness instances of social misconduct. They may internalize these behaviors and adopt them as their own. The process of observational learning is influenced by both the behaviors of role models and the social feedback received<sup>[13]</sup>.

##### **3.1.2 Uses and Gratifications Theory**

Uses and gratifications theory posits that individuals use media platforms to obtain information, exchange emotions, and socialize in order to satisfy their psychological needs<sup>[14]</sup>. In the communication process, the interaction between media and audience constitutes a reciprocal process of use and gratification, where both parties influence, constrain, and depend on each other. In the new media environment, adolescents fulfill their needs for belonging and achievement through online interactions, and these need-driven motivations may, in turn, influence their pro-social behavior.

#### **3.2 Mechanisms by Which New Media Promote Pro-social Behavior**

##### **3.2.1 Strengthening Social Interaction and Sense of Belonging**

New media have the effect of enhancing social interaction among adolescents. Some researchers have analyzed how social media platforms influence youth pro-social behavior, focusing on platform characteristics and the communication environment. They found that in virtual spaces, adolescents' observable behaviors, as well as those of their peers and friends, can influence pro-social behavior. For instance, behaviors such as receiving "likes" from peers or posting content that includes images are more likely to promote pro-social behaviors<sup>[15]</sup>. Similarly, some scholars have examined the impact of social currency on the online pro-social behavior of WeChat users, particularly adolescents, using social exchange theory. Social currency refers to intangible assets such as prestige, influence, and attention that individuals or organizations acquire through social interactions. These assets help individuals or organizations gain more attention, support, and resources within social networks. By operationalizing the six core elements of social currency (dialogue, advocacy, information, affiliation, utility, and identity), the study found that social currency positively influences online pro-social behaviour<sup>[16]</sup>. In addition to social media, online gaming environments have also become a focus of research on adolescents' pro-social behavior in the context of new media. Scholars have analyzed the pro-social behaviors of adolescents in massively multiplayer online games, finding that perceived power (an individual's perceived influence within a team) is positively correlated with online pro-social behavior. Moreover,

perceived power indirectly influences pro-social behavior through concordant enthusiasm—enthusiasm that leads individuals to freely participate in activities without feeling coerced, aligning these activities with other aspects of their lives<sup>[17]</sup>. The interactive nature of new media provides adolescents with an immediate channel for receiving positive behavioral feedback. This interactive mechanism not only allows adolescents to feel peer support but also helps them develop a sense of belonging, which promotes the continuity of pro-social behavior.

### **3.2.2 Providing Opportunities for Positive Information Exposure and Behavioral Reinforcement**

An international study on the effects of video games on adolescents' pro-social behavior found that, despite differences in country and age, pro-social game content generally contributes to pro-social behaviour<sup>[18]</sup>. Domestic researchers have also found a significant positive correlation between exposure to pro-social video games and pro-social behavior. Frequent exposure to such positive information can directly enhance individuals' pro-social tendencies or indirectly influence adolescents' pro-social behavior through mediating factors such as empathy and moral identity<sup>[19]</sup>. New media offer an efficient means for disseminating pro-social behaviors and provide adolescents with a virtual space in which to engage. A study on the pro-social impact of online games on adolescents revealed that the pro-social nature of the game scenario itself had a more significant impact on adolescents' pro-social behavior within the game than the pro-social nature of the game content<sup>[20]</sup>. This suggests that online games, when used as a social context, play a larger role in influencing adolescents' pro-social behavior. Adolescents observe the behaviors of others and their outcomes within the social environment provided by new media, which in turn enhances the frequency and quality of their own pro-social behavior.

## **3.3 Mechanisms by Which New Media Inhibit or Distort Pro-social Behaviour**

### **3.3.1 Interference from Information Over-entertainment**

According to uses and gratifications theory, as new media technologies develop, social media platforms, in order to satisfy users' needs, prioritize content that is highly entertaining, attracts traffic, and resonates with users, often at the expense of educational or pro-social content. Due to adolescents' heightened curiosity and strong tendency to imitate, they tend to prefer highly engaging and eye-catching content. Coupled with the platform's recommendation algorithms, this increases the likelihood that adolescents are exposed to emotional or extremist content<sup>[21]</sup>. This environment reduces the chances for adolescents to encounter positive, pro-social content, or even directs them toward behaviors that contradict pro-social values. Ultimately, it leads to a distortion of adolescents' values and exposes them to negative role models, impeding the formation of correct moral concepts and pro-social behaviors. This, in turn, encourages them to replicate harmful behaviors observed in new media in their real lives.

### **3.3.2 The Weakening Effect of New Media on Adolescents' Perception and Empathy**

Short video applications are particularly popular among adolescents due to their rich and dynamic content. A clear trend of short video addiction among adolescents is evident, with surveys showing that 55.9% of minors use short video platforms to access news and major events<sup>[1]</sup>. Short videos, characterized by fast pacing and fragmented content, often fail to engage adolescents in meaningful reflections on others' needs. This lack of deeper engagement hampers the development of empathy and responsibility in adolescents and limits their ability to cultivate the habit of offering help spontaneously<sup>[5]</sup>. Additionally, excessive consumption of short videos reduces adolescents'

communication and social interaction skills. This prevents them from observing emotional responses and providing appropriate reactions in real-life social settings, thus hindering the practice and development of their social skills<sup>[22]</sup>.

### **3.3.3 Negative Effects of New Media on Adolescents' Interpersonal Relationships**

The pervasive presence of the Internet in adolescents' lives has also led to negative impacts on their interpersonal relationships. Research indicates that time spent on online gaming is significantly negatively correlated with the quality of peer relationships. The more time adolescents devote to new media, the less time they spend engaging with peers, which leads to a decrease in the intimacy of their peer relationships. Moreover, peer relationships are positively correlated with adolescents' pro-social behavior tendencies<sup>[23]</sup>. Similar effects are seen in adolescents' online interactions. Due to differing preferences, adolescents often form various "small circles" or "groups" while using new media. Within these groups, opinion leaders often control the flow of information, regulating its dissemination within the group. This disrupts the norm of equality in peer relationships, making adolescents more susceptible to irrational groupthink and a narrow range of information intake, thereby indirectly influencing their pro-social tendencies<sup>[24]</sup>.

In addition to affecting peer relationships, new media also indirectly impacts adolescents' pro-social behavior through its influence on parental behavior. As new media becomes more widespread, an increasing number of parents rely on social media platforms. A study involving secondary school students found that early adolescents who perceive more "head-down" behaviors from their parents tend to exhibit fewer pro-social behaviors. This negative effect may stem from a weakening of the parent-adolescent attachment relationship. A poor parent-adolescent attachment can lead to lower levels of gratitude, which further diminishes pro-social behaviors during early adolescence<sup>[25]</sup>.

## **4. Strategies for Cultivating Pro-Social Behaviour in the New Media Era**

### **4.1 Awakening Youth's Inner Goodness through Educational Interventions**

Create a gamified classroom environment and organise extracurricular activities that enhance interpersonal connections, allowing students to truly engage and immerse themselves, thereby reconnecting with their perception of real life and stimulating their inner goodwill. For instance, schools can use gamification to encourage pro-social behaviours. Research has shown that pro-social tasks in games can significantly boost adolescents' willingness to cooperate<sup>[19]</sup>. Additionally, through mental health education classes, schools can work with students to explore the underlying internet triggers and drivers behind many online behaviours, guiding adolescents to adhere to moral principles. In the face of public opinion pressure, they should remain rational, calm, and brave enough to speak out. By learning to view issues from others' perspectives, adolescents can form correct altruistic beliefs and attitudes towards strangers, gradually cultivating a sense of social responsibility and adherence to positive social norms. Beliefs in social responsibility, altruism, pro-social subjective norms, and indirect reciprocity influence the emergence of adolescents' online pro-social behaviours. The latter three also affect how adolescents perceive being treated well in the online environment, which helps foster long-lasting pro-social behavioural tendencies<sup>[26]</sup>.

### **4.2 Leveraging the Normative Role of the Family in Daily Life**

Parents should develop good communication habits to enhance adolescents' sense of belonging at



home. Additionally, families should work together to establish norms for new media usage, reducing the intrusion of new media into real life. Research shows that peer relationships are significantly positively correlated with pro-social behaviour tendencies, and cultivating pro-social peer relationships can mitigate the reduction in pro-social behaviour caused by excessive internet use, which weakens adolescents' self-control<sup>[23][27]</sup>. Setting rules to limit exposure to negative or overly entertaining content, reducing gaming time on weekdays, and increasing adolescents' participation in offline life can help reinforce the importance of peer relationships in their lives.

### 4.3 Implementing Policies to Optimise New Media Platforms

The government can promote the integration of public welfare activities with new media through legislation and policy, encouraging businesses and non-profit organisations to carry out youth-friendly activities on platforms such as short video sites and social media. Continuous regulation and oversight of new media platforms' push and review mechanisms are essential to reduce the trend of pan-entertainment on the internet and create a more conducive online atmosphere.

Platform providers should continually optimise their recommendation algorithms, prioritising pro-social behaviour-related content. They should also strengthen content auditing to prevent the spread of false pro-social behaviour and increase adolescents' exposure to positive information and pro-social actions. Platforms could introduce interactive incentives for public welfare content, rewarding users for sharing and participating in positive activities to reinforce pro-social behaviour. For example, Alipay's "Ant Forest" and Tencent's "99 Public Welfare Day" are impactful online public welfare activities organised by platforms.

## 5. Conclusion and Outlook

New media, as a highly interactive and communicative form of media, has been deeply integrated into adolescents' lives, significantly influencing the shaping of their pro-social behaviour. The following conclusions can be drawn from this review:

**The Dual Role of New Media:** New media provide abundant opportunities for the learning and dissemination of pro-social behaviours, acting as a social space where adolescents can receive positive reinforcement for pro-social actions. However, the anonymity and fragmented nature of new media can also weaken the authenticity and sustainability of these behaviours.

**Multi-Level Influence Mechanism:** Adolescents' pro-social behaviours are influenced by new media content, platform functions, and social interactions, including observational learning from role models, as well as being deeply shaped by algorithmic recommendations and social feedback.

**Collaborative Efforts to Turn New Media Challenges into Opportunities:** Cultivating pro-social behaviour in adolescents in the new media era is a complex task, requiring the collaboration of families, schools, society, media platforms, and governments. Only through joint efforts and continuous innovation can we maximize its positive effects.

Current research on adolescents' pro-social behaviour in the context of new media still relies heavily on conventional indicators such as usage time and intensity, and lacks longitudinal studies to reveal the long-term impacts and underlying mechanisms<sup>[28]</sup>. In the future, as new media technologies continue to evolve and proliferate, adolescents' behavioural patterns across virtual and real environments will become increasingly diverse, requiring further research and practice. Researchers should explore the unique pro-social behaviour characteristics of adolescents across different platforms, providing insights for optimising platform design. Cross-cultural comparative research should be deepened to offer a scientific basis for international cooperation and policymaking. Longitudinal studies should be strengthened to uncover the long-term effects of new

media on adolescents' pro-social behaviour and the mechanisms behind them.

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