

Research on the Psychological Characteristics and Positive Guidance Education of College Students' Internet Use

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ABSTRACT

This article focuses on the psychological characteristics, practical difficulties, and educational intervention paths of college students' internet use behavior. The study found that college students' internet use presents compensatory needs for virtual social interaction and real interaction, as well as constructive mechanisms for information acquisition and self-identity; At the same time, it faces practical problems such as cognitive dissonance caused by dependency use, reality detachment caused by virtual social alienation, and value judgment dilemma under information overload. In response to the above issues, intervention paths such as building a tiered digital literacy education system, creating virtual real integration social practice scenarios, and implementing precise network value guidance projects are proposed. The study emphasizes the need to promote the transformation of college students' online use from "passive adaptation" to "active construction" through the synergy of technological empowerment, behavioral intervention, and psychological support, providing structured solutions for mental health education in the digital age.

KEYWORDS

College students; Network usage; Psychological feature; Reality dilemma

1 Introduction

In the digital age, as a group of internet natives, college students exhibit complex psychological characteristics and real-life contradictions in their internet usage behavior ^[1]. Existing research mostly focuses on surface issues such as internet addiction, lacking a systematic deconstruction of deep psychological mechanisms. This article is based on the logical framework of "psychological characteristics reality dilemma educational intervention", integrating the perspectives of developmental psychology, communication studies, and education, and systematically analyzing the psychological characteristics of compensatory social needs and constructive identification mechanisms of college students' internet use; Revealing real-life challenges such as dependency usage, virtual social alienation, and information overload; Propose innovative paths such as hierarchical cultivation of digital literacy, integration of virtual and real social practices, and precise guidance of values. Research provides theoretical support and practical reference for mental health education in universities, helping college students achieve a healthy balance between cyberspace and real society.

2 Multidimensional characterization of psychological characteristics of college students' internet use

2.1 The psychological characteristics of the coexistence of network dependence and autonomy contradictions

College students exhibit a complex coexistence of network dependence and autonomy in their psychological characteristics of internet use, with obvious inertia in their behavioral patterns and a typical rule of high-frequency application switching and fragmented use coexisting ^[2]. There are significant differences in students' self-regulation abilities, and some students can use tools to achieve effective constraints and build a healthy cycle of "utilization monitoring regulation"; The other part falls into a continuous state of immersion, exhibiting a vicious cycle of "inertia use - loss of control - compensatory use". Entertainment utilization and instrumental utilization constitute a dynamic balance mechanism, with the former focusing on social interaction and leisure relaxation, while the latter emphasizes knowledge acquisition and skill improvement. The two mechanisms complement each other in terms of situational and functional positioning - entertainment utilization meets the immediate emotional needs, while instrumental utilization serves long-term development goals, but its specific direction is clearly influenced by disciplinary backgrounds: humanities and social science majors rely more on social media to construct identity, while science and engineering students tend to access academic resources and receive professional skill training. The technological adaptation advantage of being a digital native is mainly manifested in the improvement of multimodal information processing efficiency, which can quickly integrate various forms of information such as text, images, and videos. However, the cognitive load problem that comes with it is also significant. The rapid consumption of attention resources and information overload brought about by multitasking pose a direct challenge to deep thinking ability. The contradiction between technological empowerment and cognitive consumption constitutes the core psychological tension in their network usage process.

2.2 Compensatory psychological needs for virtual social interaction and real-life interaction

College students exhibit significant compensatory psychological characteristics in their virtual social and real-life interactions when using the internet. In the online social scene, college students break the shackles of their real identity through anonymous expression, and present themselves in a diversified way in the virtual space of interest communities and topic forums. At the same time, they use a sense of group belonging to meet the basic requirements of emotional connection, and the dual demands form the core demands in online social interaction. It is worth noting that there is no simple linear correspondence between offline social skills and online social activity. Some students with strong real-life social skills may use the internet to expand their social boundaries, while those who are blocked from offline social interaction may use the internet as their main channel of interaction, resulting in a complementary effect between reality and virtuality. The need for emotional expression has become an important psychological driving force for irrational online behavior. When real-life stressors such as academic anxiety and interpersonal conflicts cannot be effectively released through channels, some students often express their emotions in cyberspace, and even produce extreme opinions or group conflicts. Although such a compensation mechanism can temporarily alleviate psychological tension, it will exacerbate the adverse effects brought by the online ecosystem and reveal the intricate interaction between virtual social and real interactions in psychological regulation.

2.3 Constructive psychological mechanisms of information acquisition and self-identity

The use of the internet by college students demonstrates a deep correlation between information acquisition and self-identity construction mechanism. Online information has become an important reference frame in their identity formation process. Under the joint action of active search and passive acceptance, individuals continuously obtain symbolic resources from social media and forums, short videos, and other platforms, and complete their self-identity, value, and social position recognition through interaction. Algorithmic recommendation has had a significant impact on this construction process. Although personalized push mechanisms improve the efficiency of information acquisition, they also form a so-called "cognitive cocoon" through information filtering, resulting in a tendency towards homogenization and group polarization of individual contact views. It is worth noting that the practice of online subcultures has a dual impact on this process. On the one hand, subcultural communities provide identity space for individuals with similar interests or status, shaping a unique value system of subgroups through shared symbols, discourse systems, and practical norms; On the other hand, this subculture identity may have a tense relationship with mainstream values, and even form a confrontational discourse, reflecting the dual complex role of the online information environment in empowering and constraining individual self-identity construction.

3 The practical difficulties faced by college students in using the internet

3.1 Cognitive control disorders caused by dependency use

College students have developed dependence on internet usage, which has led to significant cognitive control disorders^[3]. Excessive immersion in cyberspace can cause distortion in individual time perception, manifested in subjective underestimation and objective timeout of network usage duration. This perception bias further reinforces the fragmented allocation of attention resources, making it difficult for individuals to maintain continuous thinking activities. The tendency to entertain until death undermines deep thinking ability through instant feedback mechanisms, while fast-paced content such as short videos and games stimulate dopamine secretion, forming a cognitive cycle of "shallow pleasure deep boredom", significantly weakening academic focus and knowledge construction efficiency. It is worth noting that there is a vicious cycle between the risk of internet addiction and academic procrastination. Addictive behavior can directly lead to a backlog of academic tasks by squeezing out learning time and reducing self-efficacy. The anxiety caused by procrastination reinforces online avoidance behavior, forming a psychological loop of "avoidance backlog more avoidance". Cognitive control disorder not only affects individual academic development but also leads to long-term weakening of self-regulation ability, highlighting the deep-seated challenges that dependency use brings to the cognitive development of college students.

3.2 The risk of reality detachment caused by virtual social alienation

College students' virtual social alienation when using the internet significantly increases the risk of real-life disconnection^[4]. The online "persona" management strategy has become common, and individuals can construct idealized virtual images through selective display, filter modification, and other methods to meet the expectations and self-identity needs of the group. However, this behavior can lead to the suppression of the real self, the neglect of emotional expression and needs in reality, and the formation of a fragmented state of "online liveliness - online and offline silence". In the process of participating in online violence, the weakening of moral responsibility is a significant characteristic. Anonymity and physical distance reduce people's perception of the consequences of behavior, resulting in the so-called "moral disinhibition effect". Some individuals' real-life moral constraints are lifted online, leading to

unreasonable behaviors such as verbal attacks and group insults. This weakening of moral sense will backfire on real-life interpersonal communication and reduce empathy with others. The identity cognitive confusion generated by cross platform socialization exacerbates reality detachment, and the differences in role expectations between different platforms, such as the "social cow" image on social platforms and the "academic genius" image on learning platforms, require individuals to constantly switch identity masks and remain in role conflicts for a long time, leading to difficulties in identity integration in reality and cognitive confusion about "who am I", ultimately weakening the connection strength between individuals and the real society.

3.3 The dilemma of value judgment under the background of information overload

College students face obvious value judgment difficulties in the context of information overload. The algorithm recommendation mechanism constructs an "information cocoon" through personalized push, which allows individuals to be exposed to homogeneous content for a long time, and their cognitive vision is limited to a specific discourse system, resulting in the so-called "echo chamber influence". The closed nature of this information environment directly reduces the ability to analyze multiple values. The spread of online rumors relies on the resonance of group emotions and the mechanism of conformity psychology to rapidly spread. In situations where the authenticity of information is difficult to distinguish, individuals are easily influenced by group emotions, giving up independent judgment and choosing to "follow the crowd", leading to the replacement of rational critical ability with emotional reactions. Idol worship and fan culture strengthen value identification through group norms, and fan groups construct an exclusive value system through behaviors such as "controlling reviews" and "ranking", which place individual emotional identification with idols above public rationality, forming a cognitive distortion of "idols are right, that is, truth". This irrational value binding further exacerbates the bias of value judgments. These three factors combined make college students face the problem of inaccurate value coordinates in a complex network information environment, which affects their independent thinking and rational decision-making abilities.

4 Actively guiding the implementation path of education

4.1 Constructing a hierarchical education system for cultivating digital literacy

Actively guiding the implementation of education requires the construction of a hierarchical education system for cultivating digital literacy and a gradual intervention path from self-awareness to behavioral adjustment ^[5]. By developing a self-monitoring app for online use, behavior can be visualized, and technical tools can be used to record usage duration and application switching frequency, turning abstract online behavior into quantifiable goals. This helps students establish an objective understanding of their usage patterns and provides data support for future behavior adjustments. Establishing "digital fasting days" as a periodic behavioral intervention method requires students to completely disconnect from the online environment during specific periods, promote cognitive restart through mandatory offline states, slow down attention fragmentation, gradually restore deep thinking and real-life interaction abilities, and shift from technological dependence to autonomous control. Establish a credit score system for online behavior to strengthen self-discipline, incorporating monitoring data and fasting day execution into the score system. By combining positive incentives such as academic resource priority with moderate constraints such as usage time limits, guide students to transform short-term behavior into long-term habits and cultivate internal motivation for self-regulation. The system utilizes a three-dimensional linkage of technology empowerment, behavioral intervention, and institutional incentives to construct a cognitive awareness to behavioral solidification closed-loop cultivation mechanism - objective feedback from technical tools, breaking the dependency cycle on fasting days, and strengthening sustained motivation through a points system. The synergistic effect of the three provides structured support for the comprehensive improvement of digital literacy, helping college students achieve the transformation from "passive adaptation to the internet" to "active control of the internet".

4.2 Create a social practice scenario that integrates virtual and real elements

Creating a virtual real integrated social practice scenario is the core way to solve the problem of college students' online social difficulties, which requires the construction of a three-dimensional intervention system for college students' online social interaction that combines technological empowerment, real-life interaction, and psychological support ^[6]. Develop a role-playing network social simulation system that restores real social situations such as conflict resolution and viewpoint debates through virtual scenes. Combining AI feedback mechanisms, guide students to try differentiated communication strategies, reduce real social anxiety in low-risk environments, promote emotional management and expression skills, and transfer skills from virtual practice to real application. Organizing interdisciplinary online and offline academic communities, breaking through professional barriers and promoting face-to-face interaction through project collaboration and thematic discussions, not only enhances the real social experience, but also develops interdisciplinary thinking and team cohesion through collaborative practice, constructing an advanced path from skill training to social

capital accumulation. Establish a network behavior psychological counseling workstation and integrate professional psychological counseling resources to design personalized intervention plans for network dependence and social avoidance psychological problems. Through an integrated online and offline counseling model, such as online appointment counseling and offline group counseling, help students reconstruct their motivation for network use and rebuild healthy social behavior patterns. The three are linked by complementary virtual and real scenarios and psychological mechanisms, forming a guiding chain that integrates skill acquisition, practical consolidation, and psychological adjustment. This effectively promotes the social skills of college students from virtual dependence to real balance, providing a structural solution for the cultivation of social literacy in the digital age, and ultimately achieving a positive coexistence between online social interaction and real-life interaction.

4.3 Implementing a precise network value guidance project

The implementation of a precise network value guidance project requires the establishment of a collaborative mechanism for capability assessment, curriculum intervention, and opinion leader cultivation, forming a closed-loop guidance system of "evaluation training publicity". Constructing an evaluation model for network information recognition capability, by designing multidimensional indicators such as the judgment of information source credibility, the improvement of rumor recognition accuracy, and the response strategies for value conflicts, combined with big data analysis and behavioral observation to form a dynamic evaluation system, providing data support for personalized guidance, and achieving the transformation from "universal education" to "precise intervention". Next, we have designed a critical thinking course package for online culture, which focuses on practice and integrates multiple modules such as analysis of popular online events, ethical exploration of algorithms, and deconstruction of fan culture. Through interactive role-playing and simulated public opinion exercises, independent judgment and rational expression are developed, which helps students construct a cognitive framework for online information criticism. Finally, a training mechanism for online opinion leaders will be established, and influential student backbones will be selected to provide systematic training on the use of online discourse power and positive value dissemination skills for students. At the same time, a campus network community platform will be built to encourage them to lead discussions on health topics, forming a guiding effect of "point to surface". The three parties collaborate in dynamic evaluation to identify individual needs, enhance critical abilities in course training, and expand positive influence among opinion leaders, achieving the goal of precise guidance from individual ability enhancement to group value shaping. They effectively respond to the challenges brought by the complexity of network information to the shaping of college students' values, and provide structural solutions for the education of college students' values in the digital age.

5 Conclusions

This article concludes through systematic analysis that college students' internet usage behavior is the result of the combined effects of psychological needs, technological environment, and educational intervention. Psychological characteristics are manifested as the compensation of virtual social interaction for real interaction and the construction of self-identity through online information; The reality dilemma manifests as cognitive control imbalance, risk of reality detachment, and biased value judgments. Actively guiding education requires the construction of a three in one intervention system of "technology behavior psychology". Enhancing self-monitoring ability through digital literacy education, reconstructing healthy social models through the integration of virtual and real scenarios, and strengthening rational judgment through value guided engineering. Future research can further explore the application of AI technology in behavioral intervention, improve the dynamic evaluation model of the network behavior credit score system, promote collaborative governance among universities, families, and society, and ultimately achieve sustainable development of college students' online use.

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