Analysis of Influences of Internet Surfing on Psychological Development of Children and Teenagers from the Positive Psychological and Management Perspectives

Juan-juan JIN and Jie YU *
College of Elementary Education, Capital Normal University, Beijing 100048, China
*Corresponding author

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Abstract. Internet education is a novel education mode and an individualized education mode. It is an extension of traditional education by giving online education to children and teenagers. Most researches about internet surfing behaviors of children and teenagers mainly focus on internet addiction, network security and network monitoring. In this paper, an empirical study of internet surfing behaviors of children and teenagers from a new perspective was conducted under the guidance of developmental psychology, positive psychology, constructivism and humanistic thinking, which exposed the positive influence of internet surfing behavior on psychological development of children and teenagers. Since influences of various favorable factors on internet surfing behaviors of children and teenagers are hierarchical, personality factors (e.g. possessiveness and self-confidence) influence internet surfing behaviors directly, while dynamic cognitive factors (e.g. motivation and interest) influence internet surfing behaviors indirectly through personality factors. The important psychological mechanism of healthy behaviors of internet surfing of children and teenagers or transition of internet addiction was disclosed, and the management method of high-quality internet surfing of children and teenagers was proposed.

Introduction

Driving by new functions, technologies and standards, networks become more and more socialization and interconnection in recent years. Particularly, social networks have achieved unprecedented rapid development. Different from the traditional internet, in the social networks (see Figure 1 for example of the cyber Sina microblog network) [1], the users can not only interact with each other, but also form a user network (see Figure 2). With the improvement of social network analysis technology, internet surfing behaviors of children and teenagers are currently one of research hotspots. There is a low-aging trend of children and teenagers who surf on internet. More than 50% children have surfed on the internet preschool. Interest exploration, entertainment and education resources are positive effects of internet [2]. Internet surfing behaviors of children and teenagers can be divided into healthy type, growing type, satisfaction type and margin type according to perspectives of resisting bad information, resisting internet addiction, controlling online time and internet-assisted learning. Among favorable external factors of healthy internet surfing behaviors of children and teenagers, parents are the most important, followed by peers, society, teachers and school successively.

Internet development is conducive to forming self-learning or collaborative learning. Children and teenagers can understand information of schools timely through internet, but also can learn courses and communicate with teachers directly to acquire answers and knowledge. Internet can help children and teenagers to enhance their skills continuously [3]. Some American experts and scholars viewed computer skill as one of five basic skills of successful youths, because almost all aspects of information involving human life are available on the internet [4]. Internet is an inexhaustible knowledge treasure to children and teenagers who are skilled in computer. Therefore, managing...
internet surfing behaviors reasonably and increasing knowledge of children and teenagers will achieve superficial and qualitative progresses.

Figure 1. The Sina microblog network.

Figure 2. The user network in microblog networks.

Status Analysis of Key Network Usages of Children and Teenagers

According to the CNNIC’s 35th survey on internet development status in China, children and teenagers younger than 25 years old account for 0.277 billions of 0.649 billions of netizen population by December 2014, which is equal to 79.6% of Chinese children and teenager population.

Netizen Population

New children and teenager netizen population in China increased by 20.72 millions in 2014, showing a growth rate of 8.1%. The proportion of children and teenager netizens in total netizens was 42.7%, which was 1.2% higher than that in 2013.
Internet Surfing Place

By December 2014, the proportion of accessing to internet of families with children and teenagers was 3.6% than that in 2013, while the proportion of internet surfing in internet bar and schools decreased to some extent. The family accessing to wi-fi will continue to increase the proportion of family accessing to internet.

Related investigation has disclosed that more than 56% children have surfed on internet before 5 years old. Since children and teenagers lack independent economic capability, parents have strict control on internet surfing and they mainly surf on the internet mainly through Wi-Fi and wired network.

Internet Surfing Hours

The weekly internet surfing hours of children and teenagers in 2014 were nearly 4h longer than that in 2013. Weekly internet surfing hours of children and teenagers increased significantly. Specifically, the weekly internet surfing hours of pupil netizens were 14.4h, which was 3.7h than that in 2013. The weekly internet surfing hours of middle school students increased by 4.3h and the weekly internet surfing hours of non-students were 31h, which was 5.4h longer than that in 2013.

Internet Surfing Behaviors

By December 2014, 64.3% children and teenager netizens were willing to learn knowledge through the internet; 49.2% children and teenager netizens were willing to publish their opinions and comments on the internet; 71% children and teenager netizens watched video; 65% children and teenager netizens played online games; 58.4% children and teenager netizens were highly or relative depending on internet; 60.1% children and teenager netizens trusted online information; and 54.6% children and teenager netizens believed that China’s network environment is safe.

Based on above statistical analysis, some conclusions could be gained:

1. Internet surfing demands of children and teenagers. Watching video and playing game are main internet surfing demands of children and teenagers, followed by learning and doing homework. Understanding internet surfing content of children and controlling internet surfing hours become the mostly concerned problems of parents.

2. Attitude to internet. Children and teenagers are keen on online game and entertainment. They experience happiness and satisfaction from the network. They have high trust and dependence on the network.

3. Parents’ management of children’s internet surfing behaviors. Most children surf on internet at home and 98% parents will adopt internet equipment management as the solution to control internet surfing hours and accessing to bad information.

4. Internet surfing trend and characteristics of children and teenagers. Children and teenagers of different ages prefer to different internet contents. With respect to games, pupils prefer to easy entertaining games with certain sociability. Users put forward higher requirements on image resolution, difficulty, operation complexity, challenge and competing funs of the game.

Relation Mechanism between Personality of Children and Teenagers and Social Network

Personality

Personality forms the unique ideological, emotional and behavioral modes of a person. It is the special psychological qualities of one person in response to himself, others, things and objects in the adaptive process to social life, mainly manifested by external language and behaviors as well as the implicit personality elements. Character is the stable individual attitude to reality and surrounding world as well as the corresponding behavioral habits. It is the important component of personality. The Alport theory of personality trait puts forward that individual have common traits and individual characters, which is consistent with two processes of establishing personality of children and teenagers:
interpersonal relationship establishment process and self-positioning process. The common traits determine that similar children and teenagers are easy to establish a circle of friends (according to the theory of similarity attraction, similar individuals are easier to build relations). Individual characters help them to maintain the unique ego. On one hand, children and teenagers long for stable intimacy relations that can provide them sense of security. On the other hand, they have the desire to establish a consistent, unique, practical and positive self-perception. During interaction of these two processes, individuals form stable personality gradually. This reflects that children and teenagers establishing social network is an important component of personality formation. At the same time, they readjust self-positioning in order to maintain independence. These two processes occur repeatedly until the individual forms stable personality characteristics.

Cognition

Human cognition is from human recognition of external stimulation mode. The principle of neural science of cognition is the evolution of prefrontal cortex (nerve area behind the forehead and eyes), which controls things what we concern and what we want to write. The more violent activity of cells in this region, the stronger ability of individuals to take act and resist temptation. Cognition is deduction of individuals to others or things according to social information in the environment. It is the unique senior cognitive activity form of people and has characteristics of selectivity, coordination and projection. Individuals gain sensory information from external stimulation mode and explain the sensory information with their own knowledge and experiences, thus knowing significance of things. The cognition structural model puts forward that human cognition includes four main components: sensing process, memory process, control process and reaction process. The sensing process is the information input process of sensing system provided by the environment. The memory process is the matching process between external new stimulus and original images in the memory system. The control process is that the brain central processing unit determines how the system works through plan. The reaction process is to make actual responses, that is, final output of different systems.

Motivations

Demand is an internal imbalanced state of individuals. Motivation is the internal impetus which is generated by some target or object based on demands to achieve individual activities and can stimulate, maintain and guide functions. According to the theory of Maslow’s hierarchy of needs, people have demands for safety, sense of belonging, love and respect. Affiliation motive, or known as communication motivation, refers to that individuals are willing to stay with others or hope to join one group because of being afraid of loneliness. Some scholars studied individual motives to establish a social network. They believed that there are two main motives, safety and self-efficacy. Children find the sense of belonging and safety and meet their own interests by establishing a social network. With the propose of self-presentation, people will control and feedback appearances by using various strategies, share feelings and belief with others, hope others to response accordingly, and win others’ trust through sincerity. Everyone in the interpersonal relationship desires toleration, recognition and emotional stimulation. Appreciation or rewards of children from other group members will stimulate children to set examples, give play to children’s subjective initiatives, undertake obligations and responsibility and represent themselves positively, thus forming a virtuous circle. Everyone has achievement motives. Toddler period is the key period to train achievement motives. Therefore, parents shall encourage children to communicate with others, establish good relations with others, undertake responsibility positively, and let children experience the sense of achievement brought by independent accomplishment of one thing. Meanwhile, self-representation is a process of self-exposure. Parents shall pay attention to performances of children, explore advantages and disadvantages of children and teach children better.
Two-Way Covariant Relationship

Network is the soil of production, propagation and recreation. It is an advantaged platform. Diversity of networks is conducive to stimulate collective intelligence of netizens. Due to anonymity, autonomy, many-to-many interaction, empowerment, entertainment and space-time freedom of network environment, citizens are happy to create, produce and release contents, which is good to stimulate creativity of children. Anonymity, initiative and creativity encourage people to create and exhibit disruptive, individualized and non-rational innovation contents, and pursue higher concerns. Creation is explicit and highly voluntarily and inner driving. It is also the needs to pursue happiness and meet self-representation or express opinions, thus wining psychological earnings, such as approval from others, reputation and sense of achievement. In this process, mutual dependence and influence of individuals are reflected by online interaction and communication. They have insights and inspirations on specific themes continuously under others’ enlightenment. They are not mutual dependence in physical distance, but are mutual enlightenment, dependence and interaction in thinking, concepts and creativities, thus realizing group contagion and group motivation. Group contagion will remove inner constraint and restricts of individuals. A harmonious group can give individuals sense of safety, power, self-confidence and self-respect, which is beneficial to development of healthy personality.

Emotion

As the network extension of actual society, internet provides a platform for information sharing, opinion expression and emotional release. Anonymity and the loose and open atmosphere give individuals more free space to express their emotions. The massive online text message covers the rich psychological process of human beings. Since artificial classification couldn’t classify massive data, big data mining technology and traditional sampling statistics method were combined in this paper. The github Chinese word segmentation tool (https://github.com/fxsjy/jieba) and artificial emotion were used for labeling. Some researchers discovered that positive emotion can trigger more creativity reaction than negative emotion. The meta-data analysis proved that positive emotion and negative emotion influence different dimension of creativity through different paths. Positive emotion can increase cognitive flexibility of human beings, expand cognition range, accelerate information processing, and trigger higher-level cognitive fluency and inventive responses. Negative emotion will narrow cognitive range and reduce cognitive flexibility, but it can increase duration of cognition, thus making people to produce more creative, insight and innovative solutions.

Application of network makes internet surfing behavior prefer to natural exposure, which can help network supervision department to implement behavioral intervention. Some scholars established terrorism violent behavior alarming model based on emotional analysis, which was used to monitor and discover terrorism violent behaviors in social media. They used abnormal changes of negative sexual moral emotions (anger, hate and contempt) in online texts as early emotional alarming signal of violent events. Online text analysis is an essential trend in the internet era to guide correct public opinion, early discovery of common collective behaviors and terrorism violent behaviors, network supervision department shall adopt different intensities of control to different groups and increase supervision efficiency.

Emotion is the consequence of natural selection and the consequence of socialization. The infector theory believes that individuals will imitate others automatically and continuously when interacting with others and prefer to capture others’ emotion all the time. Mutual imitation and emotional convergence of different group members are called as group contagion theory which would finalize influence individual behaviors and emotional experience. People with similar mental state are easy to develop emotional resonance. Research results discover that distressed emotion will be shared more and affected people will take the initiative acts.
Intermediary Factors

The intermediary factors includes attitude toward network, network representation and appropriate atmosphere, and status of group members.

(1) Attitude toward network. Attitude refers to the stable psychological disposition of individuals to specific objects, which often carries with subjective assessment of individuals and behavior tendency caused by such subjective assessment. The dual-attitude model shall divide the attitude into explicit attitude and implicit attitude. The explicit attitude could be reflected through self-reflection, whereas implicit attitude is the inner, depressive and restrained attitude.

(2) Network representation and appropriate atmosphere. Representation of positive results (e.g. smoking cessation can win social respect and prevent diseases) is easier to cause response of other netizens compared to representation of negative results (for example, smoking will bring social contempt and diseases).

(3) Status of group members. Group members will imitate behaviors of the member at high position and win social approval through imitation and following. Members accepting and following to behaviors and attitude are conducive to train positive self-concept, thus realizing self-identification.

Conclusions and Prospects

The significant influence of social network is based on multiple factors or mechanism. Social network can provide perceptual and actual social supports. It applies social impacts beneficial for maintaining healthy behaviors, generalized social connections means increase of social activity and social participation, thus facilitating healthy interpersonal relationships between people. Social network gives individuals more response resources and information, induce modern concept of children and teenager netizens, understand the society more comprehensively, stimulate their desire to participate in social activities, encourage them to express opinions to the society, school and life, communicate with people with different opinions actively. These are good to form correct views of the world and life. Moreover, quality of the internet is highly approved by children and teenagers who surf on the internet, which can improve subject consciousness, and increase ability for equal participation and positive communication. Mutual aid of the network offers a convenient channel to online donation, online aid, and online registration in voluntary activities which can enhance children’s sense of social responsibility. However, development of things often has dual characters. Since children and teenagers are in the physical and psychological development period and have weak judgment, self-control and selection capability, blind internet surfing behaviors which have coexistence of good and bad information, but no effective monitoring will cause damages to physics and psychology, and make them easy to form over dependence on internet, and even internet addiction.

Establishing a reasonable management method to internet surfing quality of children and teenagers, concerning interests, internet surfing hours and locations, as well as giving accurate and timely guidance could increase children and teenagers’ knowledge significantly, making the internet serve the society and human beings better.

References