# Research on Effective Strategies of Network Security Education in Colleges and Universities in Mobile Internet Era

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**Abstract:** In the whole society of Internet users, students occupy a relatively high proportion. With the continuous progress of online education, the communication and learning activities between teachers and students become more convenient and faster. However, in the network education, a series of network security problems also arise. When using the network education, colleges and universities need to keep up with social development and ensure the efficient completion of network security education through big data technology. Based on the specific situation of network security education in colleges and universities in China, this paper puts forward the importance of network security education in colleges in the mobile Internet era, analyzes the problems in the college network security education in the mobile Internet era, and formulates the network security education measures in colleges in the mobile Internet era.

#### 1. Introduction

The mobile Internet era plays a good role in promoting the development of all walks of life, accelerates the completion of information resources circulation and sharing activities, greatly promotes the education of colleges, and seriously affects the traditional way of college education. At present, to adapt to the development of the times, colleges and universities need to improve the traditional educational ideas, innovate teaching methods, deeply understand and master the connotation of education, promote the improvement of teaching quality, closely link all work with big data technology, and point out a new direction for the development of network security education in the mobile Internet era.

# 2. Importance of Network Security Education in Colleges and Universities in Mobile Internet Era

College students have more leisure time, and usually choose new mobile terminal intelligent devices to carry out learning, communication, shopping and other activities through the network platform. However, college students lack sufficient social experience, have a low defense against network temptation, lack a certain sense of information security, so it is hard to correctly identify a large number of network information, let alone information security protection, resulting in network security accidents. Therefore, while carrying out network education, network security education in colleges is an important content.

In the era of mobile Internet, students can learn more information resources and educational materials can be more diverse. However, the network information also has some disadvantages. The network education in colleges should focus on how to promote students' relevant ability through good information. Therefore, through the network security education in colleges and universities, we can promote the identification and application ability of college students, promote the development of students' innovative thinking, help students cultivate correct values and ethics, and promote their comprehensive ability.

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# 3. Problems of Network Security Education in Colleges and Universities in Mobile Internet Era

# 3.1 Failure to Fully Realize the Importance of Network Security Education in Colleges and Universities

In mobile Internet times, the department in charge of education has a one-sided understanding of the significance of network security education, and has not issued relevant guidance documents, resulting in the lack of unity of network security education in colleges. At this stage, the use of the network, information acquisition and resource sharing are the main work of all colleges, ignoring the network security. Compared with the fast progress of computer and network technology, the network security education of all colleges and universities lags behind a lot, and it is hard to meet the needs of the development of the times.

### 3.2 Lack of Perfect Network Security Education Leadership Mechanism

At present, only a few colleges and universities have carried out the construction of network security education leadership mechanism, formulated and implemented a more scientific leadership mechanism. While carrying out security education, some schools are simply involved in network security knowledge, and some just use lectures or flyers to help students understand the relevant content. In the relevant work of the school, the operation mechanism of network security education has not been further determined. Although some schools have set up leading groups for network security education, their responsibilities have not been further determined, and the operation mechanism is not scientific and systematic, which has greatly affected the development of network security education.

#### 3.3 Unadvanced Content of Network Security Education Textbooks

At present, the basic computer knowledge and operation are the key contents in the basic computer teaching materials, but very little knowledge about network security is simply introduced. The textbooks only give a general explanation of the concept and classification of viruses, but basically does not involve virus prevention and treatment of machine infected by viruses. Although some textbooks introduce the treatment of single machine virus, they lack the related content of network virus and its harm. In most of the computer professional textbooks, theory and algorithm are the main content, rarely involving network security laws and regulations, management system and other content.

# 4. Measures of Network Security Education in Colleges and Universities in Mobile Internet Era

# 4.1 Formulate and Improve the Network Security Education System in Colleges and Universities

In the era of mobile Internet, to promote the scientificity and effectiveness of network security education, colleges can organize leading groups of network security education based on their own situation and specific needs. The leader is the Secretary of the Party committee of the school, and the relevant work is carried out by all departments of the Party committee, the Youth League Committee, the information office and other units. We should give full play to the guiding role of Marxism, pay attention to the implementation of national decisions and calls on network security issues, cultivate our own scientific education and management ideas, and ensure the smooth development of the planning work. As for the specific network security education work, we should also scientifically divide the relevant responsibilities to ensure that all departments can successfully complete their own work.

Colleges can also develop a reasonable assessment and evaluation system, regularly carry out relevant supervision activities for network security education, find out the existing problems at the first time, and formulate relevant treatment measures. We should also consider the work situation of relevant departments and responsible persons systematically. As for the specific evaluation work,

we can use the form of random sampling, or let other departments carry out evaluation activities. The departments or individuals with excellent performance in network security education can be praised and encouraged to a certain extent, which can play a good incentive role for other departments and individuals.

#### **4.2 Vigorously Integrate Social Resources**

In the mobile Internet era, college network security problems emerge in endlessly, and the whole society pays much more attention to them. The college network security education belongs to the system engineering, which is more complicated. Especially with the fast development and progress of information technology, it is very difficult to carry out the work. In the process of network security education in colleges and universities, we can promote the generation of linkage operation mechanism from the perspective of the overall social environment, which can promote the development of network security education in colleges and universities. In specific work, we can encourage some positive social forces to participate, such as community organizations, network service providers, volunteer groups, research institutions, charities and so on. Internet service providers have a large amount of data resources, so they can sort out and summarize the students' mobile network crime cases and situations, and provide more materials to the research activities of related issues, which is helpful to properly deal with the problems. In the process of research and discussion on mobile network anomie, through research institutions, we can provide relevant theories to the construction of relevant policies based on the diversified perspectives of criminology and criminal law. The voluntary organizations can provide free consultation and training activities.

### 4.3 Set Up Special Network Security Education Teachers

To a great extent, the educated, the content and the effect of education will be influenced by the educators. However, because counselors are not professional network security educators, they will naturally have a negative impact on the effect of network security education in colleges. Therefore, in mobile Internet era, in order to accelerate the effective development of network security education in colleges and universities, we need to attach great importance to the construction of professional network security education teachers, focus on the supplement of network security education teachers, and strengthen the training of network security education backbone. It is not only necessary to vigorously carry out the construction activities of professional teachers, but also to add the network security education in the learning activities of students' professional courses. This can help all teachers strengthen the learning activities of network security knowledge, promote the progress of all teachers' network security ideas, help to enhance teachers' network security education ability, expand the coverage of college network security education, and help to improve the quality of network security education in colleges and universities.

### 4.4 Comprehensively Purify Campus Network Environment

In the era of mobile Internet, the development of network security education in colleges will be affected by the campus network environment to a large extent. In the face of this situation, colleges need to comprehensively purify the campus network environment and promote the development of network culture in a more healthy and positive direction. In specific work, colleges and universities should enhance the attention to the construction of campus hardware and software environment, and set up the relevant signs with the network environment. Some network platforms, such as WeChat official account, micro-blog, campus network, etc., can also release knowledge contents of network security, so that students can learn more about network security knowledge. Colleges and universities can also combine with their own specific circumstances, regularly or irregularly organize educational activities with the theme of network security.

#### 5. Conclusion

The mobile Internet era provides a good opportunity for the development of higher education, but also makes it face more severe challenges. In the mobile Internet era, colleges and universities

need to keep up with the pace of social development, actively carry out innovative activities of network security education, scientifically use big data technology, further determine the security risks existing in the Internet, and formulate targeted prevention methods, so as to promote the network security performance, accelerate the development of information reform and construction of the national education system, and make an important contribution to the sustainable, stable and harmonious development of China's education.

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