

**SECURITY CONDITIONS IN MOOC COURSES ON IOS AND ANDROID
OPERATING SYSTEMS**

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Abstract

In modern education systems, digital technologies and online platforms play a significant role. In particular, Massive Open Online Courses (MOOCs) ensure globalization of education and provide open access to learning resources for a wide audience. Through these platforms, millions of users can study different subjects, technologies, and professional skills remotely. MOOC courses are also widely accessed through mobile devices. Among mobile devices, the most commonly used operating systems are iOS and Android. Therefore, ensuring the security of mobile operating systems in MOOC platforms is extremely important.

This article analyzes the security mechanisms of iOS and Android operating systems used in mobile applications for MOOC platforms. In addition, issues related to protecting user data, authentication processes, data encryption, and security policies in mobile learning environments are discussed. The results of the study indicate that properly organized mobile operating system security can enhance the protection of user information, increase trust in MOOC systems, and improve the effectiveness of the learning process.

Keywords

MOOC, mobile learning, iOS, Android, information security, mobile applications, authentication, data protection, cybersecurity, encryption technologies.

Introduction

The rapid development of digital technologies has significantly influenced the education system. In recent years, online education platforms, distance learning systems, and open educational resources have become increasingly popular. One of the most widely used platforms in this area is the MOOC system, which provides millions of users around the world with access to educational resources.

MOOC courses enable students, teachers, and professionals to gain new knowledge, improve their qualifications, and develop professional skills. These platforms are often accessed through mobile applications. Mobile learning has become a convenient and effective method for modern society.

The most common mobile operating systems used today are iOS and Android. These systems manage mobile applications, store user data, and provide access to different services. However, during mobile learning activities, important information such as personal data, login credentials, and learning progress is stored. Therefore, ensuring information security in mobile operating systems is a critical issue for MOOC platforms.

Theoretical Part

Security in MOOC platforms depends on several important factors. These include user authentication, secure data storage, protection of information transmitted through networks, and security of mobile applications.

MOOC systems must ensure protection of user data, prevent unauthorized access to the system, apply encryption technologies, and implement authentication and authorization mechanisms. If these requirements are not met, users' personal information and educational data may become vulnerable to cyber threats.

The iOS operating system is considered highly secure because it operates within a closed ecosystem. Applications must pass strict verification processes before being distributed through the official application store. Key security mechanisms in iOS include sandbox technology, biometric authentication, hardware-level encryption, and strict application review procedures.

Android, on the other hand, is an open platform widely used by different manufacturers. The Android operating system provides security through mechanisms such as Google Play Protect, application permission management, device encryption, and secure boot technology. However, because of its open ecosystem, Android devices may sometimes face risks from malicious applications.

In mobile learning applications, sensitive user information such as personal details, course data, and certificates must be protected. To ensure data security, encryption protocols such as SSL and TLS are commonly used for secure communication between mobile applications and servers. Additionally, multi-factor authentication methods can be implemented to provide additional security for user accounts.

Conclusion

MOOC platforms have become an essential component of modern education systems. They provide millions of learners worldwide with access to knowledge and educational resources. Mobile devices make learning more flexible, accessible, and convenient for users.

The iOS and Android operating systems form the technological foundation of most mobile learning applications. Therefore, ensuring information security within these systems is crucial. The use of encryption technologies, biometric authentication, secure communication protocols, and strict application verification processes can significantly enhance the security of MOOC platforms.

In the future, the implementation of artificial intelligence-based security systems, advanced authentication methods, and innovative cybersecurity technologies will further improve the reliability and safety of mobile learning environments.

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