Chapter 9
Cyber Security Strategies for Enhancing the Privacy and Security of Social Media Applications

Shaheen Layaq
https://orcid.org/0000-0002-1785-610X
Singareni Collieries Women's Degree and PG College, India

Pakalapati Arpitha
Telangana Social Welfare Residential Degree College for Women, India

Shaik Parvez Ahammad
Kavitha Memorial Degree and PG College, India

ABSTRACT

Cyber security plays a vital role in providing security in digital world. It provides security for systems, networks, data and confidential of all the online activities from different cyber threats. It may be classified into three types' network security, information security and application security. It has become part of our daily applications. Among all the applications providing security and privacy for social media applications has becoming greater importance. Cyber Security uses various strategies for providing security and privacy for social media applications. Cryptography and Network Security are considered as a backbone strategies of cyber security which ensure that sensitive data is been secured in a scalable interconnected networks and plays a key role in enhancing the security of social media applications. In this paper the concepts of cyber security, cryptography and network security- architecture, working process, protocols and algorithms and impact of cyber security on social

DOI: 10.4018/979-8-3373-3171-3.ch009

media applications are considered.

INTRODUCTION

The most important buzz word in today's world is security. The security is needed for people, property and data. Among them the data security is most important and crucial one. Cyber security (CS), (Saeed et al., 2023; Saeed et al., 2024; Saeed et al., 2024; Saeed et al., 2023) plays a vital role in providing security and privacy for digital data. CS provides security for systems, networks and data from different cyber threats. CS not only secures the personal information but also maintains confidential of all the online activities. CS may be classified into three types'

a) **Network security** - It protect computer system and networks from cyber attacks which may include integrity, availability and confidentiality.
b) **Information security** - It deals with personal and private information of individuals which may include authentication, authorization and cryptography.
c) **Application security** - It secure programs and software applications on the system which may include data breaches, code modification and unauthorized access.

CS has become part of our daily applications such as safeguarding online activities, protecting private information, browsing securely, protecting smart devices, securing social media applications and mailing security. Among all the applications providing security and privacy for Social Media Applications (SMA) (Facebook, Twitter, Instagram, LinkedIn, YouTube, Tik Tok, Telegram, Snapchat, so on) has becoming greater importance. CS uses various strategies such as data encryption using cryptography, network security, identity and access management, monitoring and logging, cloud security strategy and compliance and governance for providing security and privacy for social media applications.

Cryptography and Network Security (CNS) are considered as a backbone strategies of cyber security which ensure that sensitive data is been secured in a scalable interconnected networks. The relationship between CS, network security and cryptography can be shown in Figure 1. CS is superset or it consists of network security and cryptography as subset. The SMA requires both CNS and CS for secure communication.