

THE ROLE OF ENCRYPTION TECHNOLOGY IN PROTECTING DATA PRIVACY: LEGAL AND SOCIAL ASPECTS

Gunawan Widjaja

Senior Lecturer Faculty of Law Universitas 17 Agustus 1945 Jakarta

widjaja_gunawan@yahoo.com

Abstract

In today's digital era, data privacy is a major concern for individuals and organisations around the world. Encryption technology has emerged as a key tool in the effort to protect data privacy, making it an important subject to be studied from various aspects, including legal and social. This research aims to explore the important role of encryption technology in protecting data privacy and its impact on legal and social aspects. From a legal perspective, this research examines how encryption helps entities and organisations meet the legal requirements of privacy and data protection, such as GDPR in the European Union and CCPA in California, as well as the challenges faced in implementing encryption. On the social side, the study highlights how encryption strengthens public trust in digital technology, enables secure personal communication, and supports freedom of speech in the digital environment. In addition, the study also discusses ongoing challenges, such as the balance between the need for encryption and the need for law enforcement to access data in crime investigations. In conclusion, encryption technology is a critical aspect of protecting data privacy, with significant implications in both legal and social aspects. This research suggests the need for further collaboration between policymakers, the technology industry, and the general public to formulate strategies that enable the effective use of encryption while addressing security needs and social justice.

Keywords: Role, Encryption Technology, Protecting Data Privacy, Legal and Social Aspects.

Introduction

In today's digital age, data is one of the most valuable assets for individuals and organisations. Data is a set of facts that are stored and organised in such a way that they can be in the form of numbers, words, measurements, observations, or even descriptions of certain phenomena. Data can be quantitative or qualitative and is used as a basis for analysis, decision making, or to answer research questions. Data can be found in various forms and formats, including text, numbers, photos, audio, and video. In this digital era, digital data is abundant and is an important source of information for individuals, businesses, and researchers in understanding, analysing, and responding to various phenomena, trends, and the needs of society (Solove, 2008).

The increase in online activity, from financial transactions to everyday communication, has posed significant challenges in terms of data privacy protection. Data privacy protection is an important aspect of maintaining individual autonomy, financial security, and personal freedom in an increasingly connected world. By