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Web-Based Data Hiding: A Hybrid Approach Using Steganography and Visual Cryptography

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In today's digital age, protecting sensitive data during transmission and storage is a critical concern. The rise of cyber threats has made it essential to develop secure communication channels to prevent unauthorized access and theft of confidential information. In this research, we propose a system that utilizes a combination of steganography and visual cryptography for secure data hiding. The main goal of this research is to address the issue of secure communication by concealing information in a digital image using steganography. After encoding the text in the image, the resulting steganographic image is divided into two shares using visual cryptography, ensuring that the data is protected from unauthorized access. This approach offers a practical and effective solution for secure data hiding, which can have potential applications in fields such as information security, privacy protection, and digital forensics. Overall, this research offers a viable solution to the problem of secure communication, which can help safeguard confidential information in today's digital world.

Keywords: *steganography, visual cryptography, encode, decode, secure data hiding*