

CaracalSteg: A Dart JPEG Steganography Library and Companion App
(Technical Report)

Data Hiders and Finders: Encryption, Profitable Data, and Academic Open
Access

(STS Research Paper)

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by

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Preface

How may privacy be optimized? Freely available information tends to advance the public good at the price of individuals' rights.

Publicly available image steganography software either tends to be difficult to use or fails to produce images suitable for sharing over social media due to lossy JPEG compression. We implemented a robust JPEG steganography program using the Haar wavelet transform and Hadamard error-correcting codes that survives compression such as Facebook's. We are also developing a Flutter mobile app with a modern interface so average users can more easily use steganography with image sharing services.

Internet users may be classified as data hiders or data finders. Data hiders restrict the spread of some information; they include enterprises with business interests in privacy, encryption users, and some academic publishers. Conversely, data finders seek data; they include enterprises with a business interest in consumer data, law enforcement, and advocates of open-access academic publishing. Privacy optimization is a problem of balancing these groups' competing interests and values.

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