

# Episode 08 – What is cryptography ?

European section – Season 3

- Cryptography** : The practice and study of hiding information.
- Encryption** : The process of obscuring information to make it unreadable without special knowledge, key files, and/or passwords.
- Decryption** : The process reversing an encryption, i.e. the process which converts encrypted data into its original form.
- Cipher** : A method of transforming a text in order to conceal its meaning. More precisely, it refers to methods where each letter is replaced by another character or number.
- Code** : A cryptographic system that converts words or phrases into codewords.

**Encode or encipher** : To convert a readable text into an unreadable one.

**Decode or decipher** : To convert an unreadable text into a readable one.

**Plaintext** : Un-encrypted text, text that is readable.

**Ciphertext** : Encoded text, text that is unreadable.

**Cryptanalysis** : An analysis or decrypting of a specific text or a specific code or cipher, or more generally the science of analyzing and breaking of codes and ciphers.

# The Gold Bug, by Edgar Allan Poe

“The Gold-Bug” tells the story of a strange man named William Legrand who seemingly goes mad after finding and being bitten by a bug thought to be made of pure gold. He notifies his closest friend, the narrator, telling him to immediately come visit him at his home on Sullivan’s Island in South Carolina. Upon the narrator’s arrival, Legrand informs him that they are embarking upon a search for lost treasure along with his African-American servant Jupiter. The narrator has intense doubt and questions if Legrand has gone insane.

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After following several clues, however, they find treasure buried by the infamous pirate “Captain Kidd”, that is estimated by the narrator to be worth about fourteen million dollars. Once the treasure is safely secured, the man goes into an elaborate explanation of how he knew about the treasure’s location, based on a set of occurrences that happened after the discovery of the gold bug.

# The Gold Bug cipher

53†††305))6\*;4826)4†.)4†);806\*;48†8  
\$60))85;1†(;:†\*8†83(88)5\*†;46(;88\*96  
\*?;8)\*†(;485);5\*†2:\*†(;4956\*2(5\*-4)8  
\$8\*;4069285);)6†8)4††;1(†9;48081;8:8†  
1;48†85;4)485†528806\*81(†9;48;(88;4  
(†?34;48)4†;161;;188;†?;