



Ιπποπόταμος
WoLLoW the HiPPo

The World of Languages and Languages of the World

Codes and Cryptography

Let's play with the Greek
Alphabet and
Transliteration

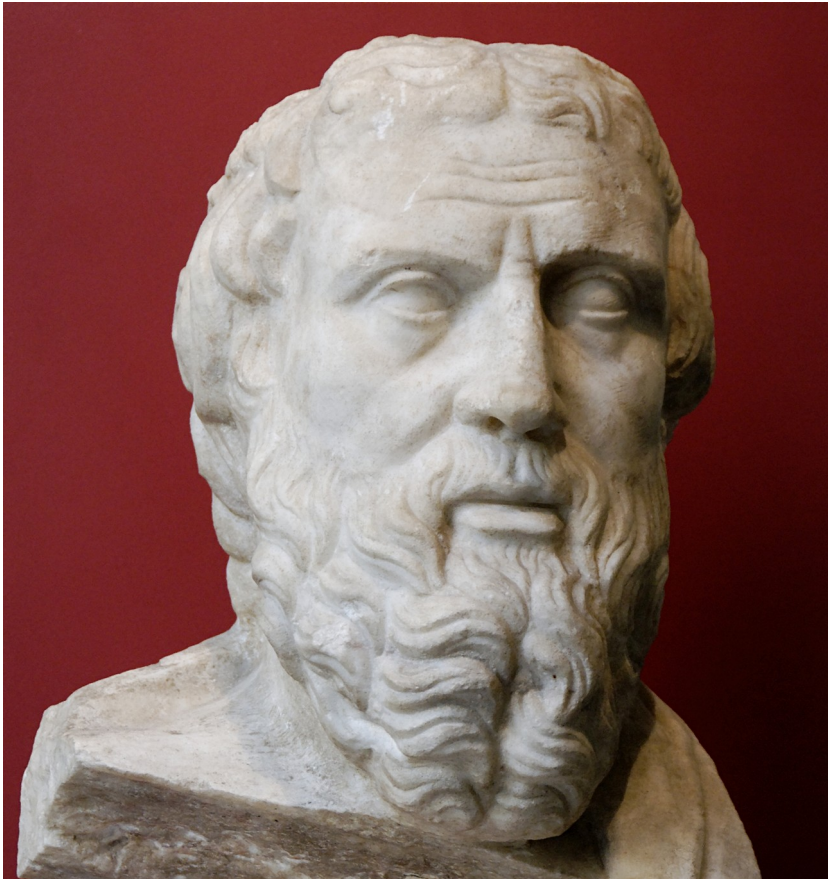


**Crypto-graphy comes
from Greek:
hidden (κρυπτός)
writing (γράφειν).**



Cryptography was developed to protect valuable or damaging information from being discovered by somebody who was not supposed to know it. There are many ways to hide this information.

One of the earliest methods was called Steganography: physically hiding the information being sent. There are many way this has been done in history, but some particularly famous examples are...



Herodotus (440 BC) talks of a method used by Demaratus to send a warning to Greece, whereby he engraved the message on the inside of the wooden backing of a wax tablet, and then applied the wax writing surface. To recover the message, the Greeks had to remove the wax.

Herodotus also mentions another method used by Histiaeus to instigate a revolt against the Persians. He shaved the hair off one of his slaves, and then tattooed the message on the slave's head. When his hair had grown back, the message was hidden, and he was sent to the recipient, who shaved the hair back off to recover the message.

Modern forms of steganography

- The use of invisible inks.
- The use of microdots, which are very small photographs (smaller than a full stop) that are stuck to letters or postcards. They are viewed using a microscope.
- As useful as steganography is, if the enemy should find the message, then they can read it easily. This is why cryptography developed, to make it harder for anyone who discovered the secret message to work out what it said.



WHEN IS A LANGUAGE LIKE A CODE?

Answer: well, it's not. But when you learn languages with new alphabets, the first thing you might try out is '**transliteration**', that is, turning words in your own language into words written down in the new alphabet.

1. Cryptography
2. Steganography
3. Transliteration
4. Code
5. Cipher



A) a system to make a word or message secret by changing or rearranging the letters in the message



B) a system of words, figures, or symbols used to represent words.



C) the process of transferring a word from the alphabet of one language to another



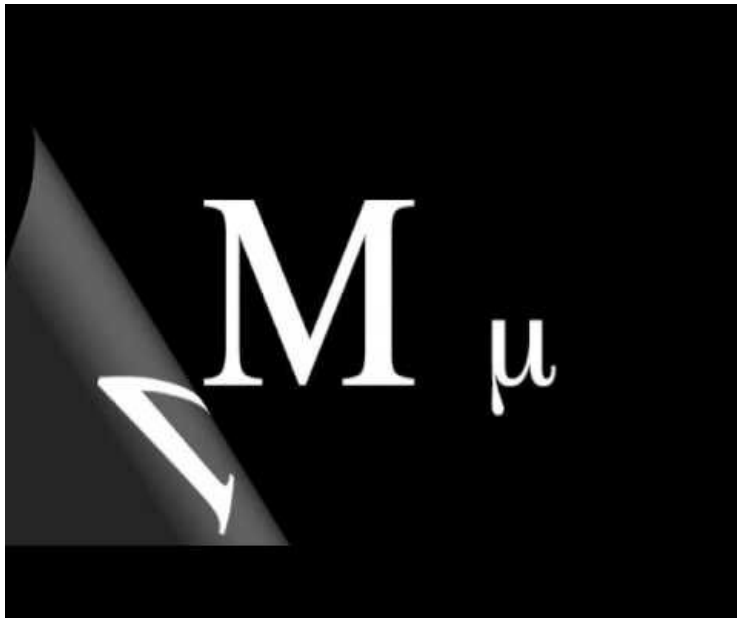
D) the technique of hiding secret data within an ordinary, non-secret, file or message in order to avoid detection



E) a method of protecting information and communications through the use of codes, so that only those for whom the information is intended can read and process it/

Answers: 1 = e 2 = d 3 = c 4 = b 5 = a

Transliteration: The Greek Alphabet



Α Alpha (Al-fah)	Β Beta (Bay-tah)	Γ Gamma (Gam-ah)	Δ Delta (Del-tah)	Ε Epsilon (Ep-si-lon)	Ζ Zeta (Zay-tah)
Η Eta (Ay-tah)	Θ Theta (Thay-tah)	Ι Iota (Eye-o-tah)	Κ Kappa (Cap-ah)	Λ Lambda (Lamb-da)	Μ Mu (Mew)
Ν Nu (New)	Ξ Xi (Zeye)	Ο Omicron (Om-i-cron)	Π Pi (Pie)	Ρ Rho (Row)	Σ Sigma (Sig-mah)
Τ Tau (Taw)	Υ Upsilon (Oop-si-lon)	Φ Phi (Fie or Fee)	Χ Chi (Keye)	Ψ Psi (Sigh)	Ω Omega (O-may-gah)

<https://www.youtube.com/watch?v=1FyEWbwBarQ>

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Writing your name in Greek

THE GREEK ALPHABET

<i>name</i>	<i>letter</i>	<i>spelling</i>	<i>capital</i>	<i>pronunciation</i>
Alpha	α	ἄλφα	A	father, hat
Beta	β	βῆτα	B	ball
Gamma	γ	γάμμα	Γ	gift
Delta	δ	δέλτα	Δ	den
Epsilon	ε	ἒ ψιλόν	E	met
Zeta	ζ	ζῆτα	Z	zoo, adze
Eta	η	ῆτα	H	they
Theta	θ	θῆτα	Θ	thing
Iota	ι	ῑῶτα	I	marine, kit
Kappa	κ	κάππα	K	kitchen
Lambda	λ	λάμβδα	Λ	lamb
Mu	μ	μῦ	M	mother
Nu	ν	νῦ	N	nice
Xi	ξ	ξῖ	Ξ	taxi
Omicron	ο	ὀ μικρόν	O	pot
Pi	π	πί	Π	peanut
Rho	ρ	ῥῶ	P	rock
Sigma	σ ς	σίγμα	Σ	send
Tau	τ	ταῦ	T	tennis
Upsilon	υ	ῡ ψιλόν	Υ	lute, put
Phi	φ	φῖ	Φ	phone
Chi	χ	χῖ	X	chemist
Psi	ψ	ψῖ	Ψ	lips
Omega	ω	ὦ μέγα	Ω	bone

Over to you...

Have a go at the worksheet. Can you test your skills of transliteration?

Do you know another alphabet?
Perhaps Cyrillic or Arabic?

If so, can you use your transliteration skills to write the sentence in your other alphabet too?



Transliteration in action

Think of times when you have seen transliteration in action.

On holiday? In airports or railway stations? In museums or art galleries? At meetings or conferences?



Acknowledgements

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