

Meeting 10

Steganography



What is Steganography?

Steganography is the art and science of writing hidden messages in such a way that no-one apart from the sender and intended recipient even realizes there is a hidden message, a form of security through obscurity.

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Generally, a steganographic message will appear to be something else: a picture, an article, a shopping list, or some other message. This apparent message is the coverttext. For instance, a message may be hidden by using invisible ink between the visible lines of innocuous documents.

History of Steganography

The word steganography is of Greek origins and means "covered, or hidden writing". Its ancient origins can be traced back to 440 BC. Herodotus mentions two examples of steganograph in The Histories of Herodotus. Demaratus sent a warning about a forthcoming attack to Greece by writing it on a wooden panel and covering it in wax. Wax tablets were in common use then as re-usable writing surfaces.

Some Techniques of Steganography

1. Writing a secret message using invisible ink.



2. Hidden messages on messenger's body: also in ancient Greece. Herodotus tells the story of a message tattooed on a slave's shaved head, hidden by the growth of his hair, and exposed by shaving his head again.

The message allegedly carried a warning to Greece about Persian invasion plans.

Continued

This method has obvious drawbacks:

- a. It is impossible to send a message as quickly as the slave can travel, because it takes months to grow hair.
- b. A slave can only be used once for this purpose. (This is why slaves were used: they were considered expendable).

Continued

3. A picture of a message in microdots or microfilms.



Continued

4. In computer era, steganography can be done by inserting a secret document into other document. Any document can be used as a media, for example text file, picture file, or multimedia file such as mp3 or video file.

Exercises Meeting-10

1. The art and science of writing hidden messages in such a way that no-one apart from the sender and intended recipient even realizes there is a hidden message :
 - a. Stenography
 - b. Stegraphy
 - c. Steganomy
 - d. Stagenoghrapy
 - e. All answer are false
2. A steganography message will appear to be something else, the examples...
 - a. A picture
 - b. An article
 - c. A message
 - d. A and C true
 - e. All Answers false
3. There are some technique steganography, except ...
 - a. Writing a secret message using invisible ink
 - b. Hidden messages on messenger's body
 - c. A picture of a message in microdots or microfilms
 - d. A copy file to another file.
 - e. In computer era, steganography can be done by inserting a secret document into other document
4. The origin of steganography from
 - a. Greek
 - b. Russia
 - c. England
 - d. America
 - e. Germany
5. The steganography usually use for
 - a. Covered
 - b. Hidden Writing
 - c. Copy
 - d. Backup
 - e. A and B true

Exercises Meeting-10

1. What is Steganography
2. A steganography message will appear to be something else, give examples...
3. Mentioned that some techniques of steganography ...
4. The origin of steganography from
5. The steganography usually use for
6. Make example about steganography as you can

References

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- http://www.fbi.gov/hq/lab/fsc/backissu/july2004/research/2004_03_research01.htm
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