

Steganography

The concept of steganography has existed for thousands of years. The Greek used to pass secret information by writing in wax-covered tablets: wax was first scraped off a tablet, the secret message was written on the tablet, and then the tablet was covered again with the wax.

Computer technology and the Internet have made a breakthrough in the transmission of information. It has also opened a whole new way of applying steganography using computer technology. Secret information can be hidden in computer image files (jpeg, gif, bmp), audio files (wav, mp3), video files (mpeg, avi), or even text files. To the person who does not knowledgeable about the file containing hidden information, it looks perfectly normal. A stegoed image, even along with the original image, if given to an average person, will be unable to tell any difference between the two, let alone deduce there is a message hidden in it. Provided the steganographic algorithm is good enough and the original image is not available, even an adept steganography expert would be unable to tell if an image contains hidden information. Making use of the Internet, secret information hidden in the carrier can be transmitted quickly, secretly, and securely.

Steganography is not an alternative to cryptography. In cryptography, data is turned into unintelligible form. However, it can be easily detected, even though the data itself cannot be turned into intelligible form easily without the encryption keys and the encryption



algorithm. Cryptographic text easily raises suspicion that some secret information is being transmitted. Steganography, rather than obfuscating the data, hides the data itself. A message, encrypted and then stegoed, gives two layers of security instead of one. The sender can deny the transmission of any cryptographic text at all.



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