

# The seeds of modern cryptography

## 1. **Diffusion**

Mix-up symbols

*Transposition Cipher*

## 2. **Confusion**

Replace a symbol with another

*Polyalphabetic Cipher*

## 3. **Randomization**

Repeated encryption of the same text are different

*OTP*

# A brief history

~ 2000 years ago	Substitution ciphers (a.k.a mono alphabetic ciphers)
Few Centuries Later	Transposition Ciphers
Renaissance	Polyalphabetic Ciphers
1844	Invention of the Telegraph
1882	One Time Pad
1939	World War II The Enigma Machine
1970	Data Encryption Standard (DES)
1976	Public Key Cryptography (RSA)