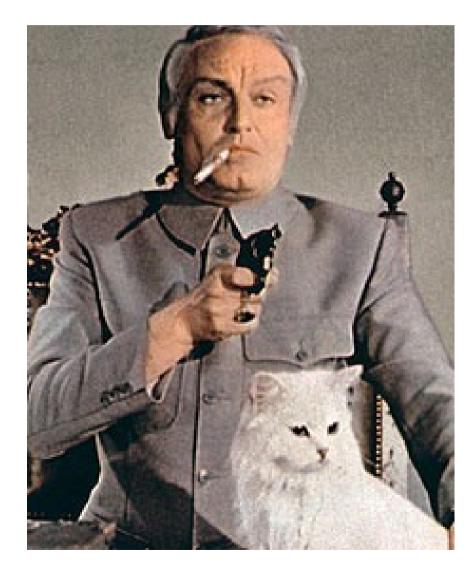
#### **Multifactor Authentication**

Something you learn... By Artem and Rob

#### Right idea, Mr. Bond...





Diamonds Are Forever (1971) United Artists

# Classic multifactor "somethings":

Something you know (a password, a pin #, the answer to a security question)

→Something you have (a token, a mobile phone, a private key, a card with a chip or magnetic stripe)

→Something you are (your fingerprints, your voice, your retina, your typing style)

→Somewhere you are (your GPS coordinates, IP Geo location)

# Real life examples of MFA

- ATM Card: a physical object (something you have) + PIN (something you know)
- The key under a door mat: a physical object (something you have) + where is it (something you know)
- Red button for the nuclear rocket launcher : PIN + 2 keys

## Not MFA!

- Password + PIN
- A key + another key
- Your fingerprint + your face

## MFA Demo for non-Duke sites

- → Paypal, Ebay, Verisign Labs
- → Google gmail
- → Your bank